

The Nor'West Farmer.

VOL. 20, No. 20.
WHOLE No. 272.

WINNIPEG, CANADA, OCTOBER 21st, 1901.

\$1 a Year
in advance.



Canadian Store Cattle for Scotland.

About 500 of the leading stock feeders of Perthshire held a meeting lately in Perth in favor of the free importation of Canadian stockers. Sir John Kinloch, M. P., presided, and half a dozen more M. P.'s sent letters expressing their sympathy with the object of the meeting. One farmer said the Canadians were offering them better cattle with less risk from disease than if they had only brought them across the Irish channel. Several speeches, vigorous in both argument and tone, were made by leading men, and a strong deputation appointed to interview Mr. Hanbury, the President of the Board of Agriculture, in support of their contentions. On the opposite side of the case there is no pretense of argument except that the present way suits the interests of the majority. We understand Mr. Hanbury has since declared that the government will do nothing to upset the present arrangement.

Stick to Your Breed.

What we want to insist on is, use pure blood rams of the breed you like best, and stick to the one breed if you would have a uniform flock, and a nice, uniform flock is pleasant to the eye and profitable to the pocket. Moreover, a nice, uniform bunch of lambs, well ripened, will always fetch the top of the market; therefore, a good, full-blood ram is cheaper at \$30 than a grade is at a gift, as he has the propensity to transmit his own likeness to the future crop of lambs. — Farmer's Voice.

Watering Cows at Will.

A test was made to determine the effect of allowing cows to drink at will as opposed to the practice of watering them at regular intervals. Four mature cows were selected for the test, and the amount of water drank was weighed in each case. The results showed that the cows that drank whenever they wished and in such quantities as they desired, made no more and no better milk than when they drank but twice daily. — Hoard's Dairyman.

Sucking Calves.

Having a considerable herd of cows, says a writer in *La Laiterie*, a French dairy paper, I have for a long time endeavored to find a means of saving the calves, and, after many unsuccessful attempts, I at last succeeded by a simple method which is within reach of all, and has given satisfaction to all my friends. Thanks to this idea I have not lost a single calf for eight years. I leave the calf with the mother for nine days. As soon as born I put the calf with the mother in the cow-house; she licks it and after some minutes the calf rises

and sucks milk. It is very important to follow exactly the following instructions:—

1. Milk and perfectly drain the cow three times a day at the ordinary time, just as though there was no calf. More or less milk will be found in the udder, but the cow will thus preserve the habit of being milked and never run dry, which she might do otherwise as some calves do not suck all the teats.

2. Never interfere to make the calf suck. Nature and instinct suffice to prompt the animal to drink when and as much as necessary.

3. Keep the cow in the house 24 hours after taking away the calf, so that she will forget it to some extent; only send her into the herd after this time. According to current ideas the milk is unfit for use for five or six days after calving. By prolonging this period to the ninth day this loss is insignificant; especially when we consider that the calf is fed during those nine days, and is henceforth proof against disease, and preservation assured.

More Draft Horses Wanted.

Although Western Canada may not have for sale many of the kind of horses the following article calls for, it will be interesting to note the trend

Constitution the First Essential

To breed for constitution it is necessary to start with animals that possess it. The start must be on both sides. The female as well as the male must be strong, vigorous and robust. Both must have reached sufficient maturity where they are able to put forth their best efforts. With such a start the young should then have everything in the way of hygienic surroundings to make them grow and thrive. Give them clean yards and stables and well-ventilated houses, summer and winter, and see that they get enough fresh air and sunshine. These are fully as essential to their growth as good food. By emphasizing good feeding we sometimes neglect the sunshine, fresh air, exercise, good ventilation and generally hygienic surroundings. The good food will not counteract the lack of all the others. Altogether they work for the highest development of the animals, and we cannot afford to neglect any one if we are to have animals with fine constitutions.

Horse Racing at Fairs.

The tendency to make horse racing the most prominent feature of the agricultural fairs is every much to be deplored, and the question may be raised

an assistance in getting other Indian children to try.

After a year twelve children had won calves, and the agent asked them to plow corn for him, agreeing to give them all the corn they could grow. Ten boys volunteered to grow corn, and they actually raised three thousand bushels, which was sold and afterwards converted into thirty-five head of steers. Each steer was branded with an individual brand chosen by the boy owner. This made them prouder than ever, and more industrious. Every boy at the agency wanted to go to work at once, and as a result of that experiment the Cheyennes are the most industrious farmers of any tribe so recently on the war-path.

Good Sires.

A Scotch farmer, in an address before the Agricultural Discussion Society, told them that years ago, when wheat was cheap and pork high priced, he often fed out his wheat to pigs, and thus he received a better price for it than the grain would sell for in the market. When doing this he often had hundreds of pigs fattening, and he would buy fresh and good, thrifty looking pigs wherever he could find them. He soon found that many of the finest pigs he bought quickly grew into lank, ungainly and unthrifty hogs, which consumed much food and grew slowly, while others that did not look as well at eight or ten weeks old, made more pork at less cost.

In searching for a reason for this he found it to be in the sire of the pigs. A good sow might have milk enough to make plump, fat pigs, but if the boar was not of good blood they would not turn out good hogs. He learned to know the father of the pigs before he bought, and if he was a good one, a lean pig was only evidence that the sow had not milk enough, perhaps because of insufficient or improper food, and when the pigs were fed as they should be, they could be cheaply kept, and at the same time would grow rapidly.

Now he applies the same rule to the calves he raises. While he likes a calf from a good cow, he does not want it unless the bull is of good blood, and if he is he may produce a good calf from a very poor cow.

Entries for the second International Live Stock Exposition at Chicago closed on October 15th. The interest shown in this big show which is to be held November 30 to December 7 is extraordinary. Some of the classes have been enlarged to accommodate all who want to compete. Everything points to an attendance that will eclipse everything of the kind in the past in America.

The annual reports of last year, (1900) of the Dominion Cattle, Sheep and Swine Associations have just been issued by the Ontario Government. Besides the routine business of the associations the report contains a most interesting report of the winter fat stock show held at Guelph. The talks and criticisms on the carcasses and animals are given in full as well as letters by feeders explaining how their animals were prepared for the show.

"The Nor'-West Farmer is a great help to me."—Albert E. Yeo, Cypress River, Man., Sept. 9th, 1901.

Really Now



Aren't Twenty-four issues of
such a journal as *The Nor'-
West Farmer* worth

ONE DOLLAR OF ANY MAN'S MONEY?

of the market in the big centres of population on the other side of the line. A New York firm dealing largely in heavy horses says:—

"We are selling more draft horses right now than we sell ordinarily at the height of the fall season. I don't know where the big horses are coming from when the coal dealers, truckmen, brewers and other large concerns begin to buy for their winter work. There are simply not enough horses of the kind they want to go around. Business men are so prosperous these days that they want to buy bigger and better work horses than ever before. Coming right at the end of a long period of depression in horse breeding, this extraordinary demand finds the country almost stripped of strictly high class young stock, thus making it doubly difficult to fill all orders. Prices for fancy draft horses will go higher than we have ever known in this country, and a lot of people will have to take horses of lighter weight than they are looking for, because there are not enough big ones to go round."

"We like *The Nor'-West Farmer* very much."—F. W. Chapple, Ebor, Man., Sept. 12th, 1901.

ed if this diversion of public money is justifiable. Attractions are necessary to the financial success of the exhibitions, and when of the right sort and within reasonable limits are desirable. When, however, a considerable portion of the prize money is devoted to sport, the fair ceases to be agricultural. The owners of these trotting horses are, in most cases, not farmers, and the money won in the events does not go to the encouragement of the breeding of the most desirable class of animals. If the township fairs are to degenerate into race meetings, the Government should either apply the pruning knife in the matter of grants or impose restrictions on "speeding contests."—Toronto Mail.

Successful Experiment.

An experiment of much value was attempted among the Cheyenne Indians in Oklahoma not long ago. An Indian agent wished the boys to milk cows for him, and agreed to give each one who milked for three months a nice calf. Fifteen boys started, but they were so ridiculed by the older men of the tribe that twelve of them gave it up. But three won the calves, and the pride of being owners of cattle served as quite

Canada's Dressed Beef Trade.

We are pleased to give below Professor Robertson's evidence before the Agricultural Committee of the House of Commons on the possible expansion of Canada's dressed beef trade. It is strongly in line with the closing paragraph of our recent editorial on the subject:—"In addition to these products I have named, there are some others which are imported in large quantities into the United Kingdom, of which Canada, as yet, sends almost none, but of which we might send a large quantity with profit to our people. One of these items of food, which Great Britain imported in large quantities, is dressed beef, dressed fresh meats. Several years ago, after studying the situation in the United States and in Canada and in Great Britain, I was firmly convinced that Canada should begin sending dressed beef to England, and should do it then as being the best time to begin. The effort I made had some educational value, but there has not been much definite action taken in the way of starting the business. If we take the course of this trade in the United States, the results from shipping live cattle and shipping dressed beef have brought about a great change in the relative magnitude of the two businesses. In 1891—I shall give you the round figures, and the details I shall furnish in the report afterwards, if wanted—in 1891, the value of live cattle sent out from the United States was about \$30,000,000 (\$30,445,249), and the value of the dressed beef was about \$15,000,000 (\$15,322,054), that is about one-half at that time. The amounts of exports in these two lines kept nearly in that proportion for four or five years. Then it seemed to me as though it was time to go in for the dressed beef trade from Canada. You will find on the records of this Committee for one of these years, how much I said on that point. From that period the exports of dressed beef from the United States began to increase much faster than those of live cattle, so that last year, 1900, while the exports of live cattle from the United States had hardly risen at all, but were still about \$30,000,000 (\$30,635,153), the exports of dressed beef had risen to \$29,643,830. You see the exports of dressed beef had almost doubled in ten years, and the live cattle business had about stood still. I am informed on reliable authority (and I mention this to call attention to what seems the better way of carrying on this business), that the firms in the United States which have been in this business of exporting dressed beef have been growing enormously rich out of it; and at the same time, in the cattle markets of the United States, the animals for this purpose and for export alive have fetched on the average from five to eight dollars per head more to the farmers than the same animals would have fetched in Canada as we have been carrying on our business; and the shippers of live cattle from Canada are not reputed to have been making fortunes. I put these two things together, and if the men who handle the beef are making a great deal of money, and at the same time leaving the producers a better price for their animals, that is the better method or system of carrying on the business. Without going into a discussion of the details, that, to me, is a phase of the subject which demands the consideration of our business men. This winter there is more dressed beef going forward from Canada than before; and I learn that a large company has been formed lately to take this up in thorough manner in Canada, and to give the dressed beef trade to England a trial for a year or more."

Perhaps the highest priced Hereford yet heard of is the 2-year-old Champion bull, Albany, which John Tudge, a noted Hereford breeder, has sold by cable to a Kansas rancher named Jamieson. This great bull has already won three championships, and his price is said to be \$6,000.

Importance of a Pure-Bred Sire

The Farmer has always stood for the use of pure bred sires. No farmer can afford to use a grade sire. That is a strong statement, but its the truth. The saving of 25 or 50 cents on the service fee means the loss of ten, often twenty, times that amount when the get of that service comes to be marketed. Isn't that so? Can you make money faster?

Just by way of further argument and to show that we are not alone in this view, here is the opinion of three papers:—

A grade sire is bound to breed your herd down, not up. He may show some ancestral merits, but he has no power to transmit them. The improvement has ended with himself.—Barnum's Farmer.

Perhaps no greater evidence of the truth of this statement is needed than the practice of western rangemen in buying well-bred bulls to head their herds, and from which they expect no realization of profit other than what the produce will bring in the open live stock market. And yet it is a regrettable fact that there are hundreds of farmers who regularly breed to inferior animals simply because, for the time being, there is a little less expense in time and money.—Drover's Journal.

Always bear in mind that the sire is half the herd; thus it is of vital importance that he be a good individual with the best blood possible in his veins.—Journal of Agriculture.

How to Detect Lameness.

An important suggestion is made by Harold Leeney, a prominent English veterinarian, in relation to the diagnosis of lameness in the horse. Every horseowner must from time to time have been much concerned to account for lameness in one or more animals. It frequently happens that the seat of the pain which causes the animal its trouble cannot be ascertained, and although it may be in the foot or below the knee, a part of the animal from which the practitioner is said to derive more than half his income, yet it is sometimes sought in the shoulder. Mr. Leeney claims that the use of cocaine will easily settle the question as between the shoulder and the foot, if the lameness is not of that intermittent character which is so often puzzling in the incipient stages of navicular diseases. He says that should a horse be lame in the foot, in which he includes all those structures which are supplied by the plantar nerves, sensation will be temporarily arrested by the injection of a solution of cocaine along the course of the nerves just above the fetlock. He is careful to add that the instrument used should be perfectly aseptic, as a protection against the injection of poisonous matter. About seven minutes should be allowed to elapse before the horse is called upon to show his movement, and then if the trouble which causes the pain is within the area which has been covered by the anæsthetic he will appear to go sound for some twenty minutes, or as long as the influence of the cocaine lasts. Should there be no lameness apparent, it practically follows that the seat of the disease is in the foot or in the structures adjacent to it.

All stock intended to be fattened for market should be pushed now as rapidly as possible in order to sell before cold weather sets in.

Saving the grain is an important item just now, but don't forget the calves. Keep them growing. They will need a little extra care now, but the return next year will more than make up for all the grain and grooming you give them.

"Please renew my subscription to your valuable paper, The Nor-West Farmer,"—E. Hudson, Plympton, Man., Sept. 12th, 1901.

BREEDERS' DIRECTORY.

CARDS under this head inserted at the rate of \$1.50 per line per year. No card accepted under two lines, nor for less than six months.

BUTTER JERSEYS FOR SALE from noted prize-winning stock. Both sexes—all ages. Reasonable prices. **Mrs. E. M. Jones**, Box 324, Brockville, Ontario, Canada. Write for what you want.

D. FRASER & SONS, Emerson, Man. Breeders and importers of Shorthorns, Shropshires, and Southdowns, Pedigree Poland China Pigs a specialty from the best strains in U. S.

JAS. MURRAY, Lyleton, Man., is offering his entire flock of Border Leicester for sale. This flock has won the flock prize eight years in succession at the Winnipeg Industrial.

K. McIVOR, Roselawn Farm, Virden, Man., breeder of Shorthorn Cattle. Introducer and grower of Western Rye Grass. Four young bulls of quality from 11 to 14 months old.

JOHN KITSON, Macdonald, Man., breeder of high class poultry. Barred Rocks, White Wyandottes, Embden Geese and Rouen Ducks. A grand lot of young stock. Prices right.

JAS. GLENNIE, Longburn, Man., importer and breeder of Holstein-Friesian Cattle. Bull calves of the famous Teake strain for sale. Write for prices. Box 95.

JOHN TURNER, "Bonnie Brae Farm," breeder of Polled Angus Cattle. Young stock of both sexes for sale. John Turner, Carrol, Man.

H. V. BYERS, Macgregor, Man., breeder Jersey Cattle. Largest herd in West, headed by Rover Pogis, No. 41020. Young stock for sale.

WM. RYAN, Maple Grove Farm, Nings, Man., breeder of Shorthorn Cattle. Two young bulls sired by Stittytton Hero and Crimson Chief.

WM. M. CHAMPION, Roselawn Farm, Reaburn P.O., Man., breeder of Ayrshire Cattle, Berkshire Swine and White Rock Fowl.

ADAMSON BROS., Gladstone, Man., breeders of Shorthorns. Herd headed by Prairie Sportsman. Three young bulls for sale.

W. G. STYLES, Rosser, Man., breeder of Shorthorns and Yorkshires. Three young bulls for sale.

A. & J. MORRISON, Carman, Man., breeders of Shorthorn Cattle. Young stock of both sexes for sale.

W. C. EDWARDS & CO., North Nation Mills, P.Q., importers and breeders of Ayrshire Cattle, Shropshire Sheep and Berkshire Pigs.

J. VAN VEEN, breeder of Galloway and Hereford Cattle and Shropshire Sheep. Lake View Ranch, File Hills, Port Qu'Appelle, Assa.

HENRY LAYCOCK, Rosebank, Man., breeder of Poland China Swine. A few choice sows with pig for sale. Prices satisfactory.

W. C. EDWARDS & CO., Rockland, Ont., importers and breeders of Shorthorn Cattle, Shropshire Sheep and Berkshire Pigs.

A. CUMMING, Rosebank Farm, Lone Tree, Man., breeder of Polled Angus cattle. We have a few bulls and heifers for sale. Write.

D. E. CORBETT, Swan Lake, Man., breeder of Shropshires. A few nice shearing rams and ram lambs; also ewes.

JOHN TRAQUAIR, Welwyn, Assa., Polled Angus Cattle, Victoria's Queen mothers, Charners, Mayflowers, etc.

JOHN S. GIBSON, Morden, Man. Young Shorthorn Bull for Sale. Poland China Pigs and pure bred Plymouth Rock Poultry.

J. H. KINNEAR & SON, Souris, Man., breeders of Shorthorns and B. P. Rocks. Eggs \$1.50 per 13. Young bulls for sale.

J. C. POPE, Regina, Assa., prize Ayrshire Cattle. Young bulls for sale. Prices reasonable.

W. H. THOMPSON, Emerson, Man. Dorset Horn rams and White Leghorn poultry.

ALEX. STEVENSON, Brookside Farm, Wakopa, Man., Shorthorn Stock for sale.

A. BRADLEY, Portage la Prairie, Man., breeder of Tamworths. Young pigs for sale.

WM. CHALMERS, Hayfield, Man., breeder of Shorthorns. Correspondence Solicited.

GEO. ALLISON, Burnbank, Man., breeder of Shorthorns and Leicesters. Stock for sale.

STEEL BROS., Glenboro, Man., Breeders of Ayrshire Cattle. Young stock for sale.

THOS. MCCARTNEY, Longburn, Man., Ayrshires. Splendid pair young bulls for sale.

G. & W. BENNIE, Castleberry, Man., Shorthorns and Clydes. Young stock for sale.

WELLINGTON HARDY, Pomeroy, Man., breeder Ayrshires, Yorkshires, Black Minorcas.

S. WHITMAN, Souris, Man., breeder of Tamworth Swine. Young Pigs for sale.

F. B. MILLER & SONS, Solsgirth, Man., breeder of Herefords. Write.

W. N. CROWELL, Napinka, Man., breeder of Shorthorns, Berksbires. Stock for sale.

T. R. TODD, Hillview, Man., Shorthorn Cattle and Oxford Sheep. Young Stock for sale.

F. J. COLLYER, Welwyn, Assa., breeder Polled Angus and Berksbires. Young stock for sale.

D. ALLISON, Stronsa Stock Farm, Roland, Man., Shorthorns and Berkshire Swine.

W. E. BALDWIN, Manitou, Man., Tamworths new blood (imp.). Young pigs for sale.

JAMES WILSON, Innisfail, Alta., breeder of Shorthorns. Young stock for sale.

JICKLING & SONS, Dewdrop Ranch, Carman, Man. Oxford Down Rams for sale.

JOHN WALLACE, Cartwright, Man., breeder of high-class Herefords.

THOS. JASPER, Bradwardine, Man., breeder of Shorthorns and Leicesters.

J. M. MACFARLANE, Moose Jaw, Assa., breeder of Clydesdales.

ALEX WOOD, Souris, Man., breeder of Oxford Down Sheep.

JOHN LOGAN, Murchison, Man., breeder of Shorthorns.

WANT, SALE, EXCHANGE

Under this heading will be inserted advertisements of farm properties, farm machinery, etc., for sale and exchange, farm help wanted, articles wanted and other lines of miscellaneous advertising.

TERMS.—One cent per word each insertion, payable strictly in advance, name and address to be included in the count. No advertisement will be taken for less than 25 cents.

For Sale.—A limited number of M.B. Turkeys, B.P. Rocks and Berkshire Pigs. Address E. S. D. Gustin, Box 11, Alexander, Man. 15-22

For Sale or Exchange for Cattle.—Two horse tread-power threshing machine, first-class repair, new bridge on power. D. McCuaig, Macdonald P.O., Man. 18-21

For Sale.—A section of land, 1½ miles from Pipestone Station, 300 acres cultivated, good well water, 100 acres pasture fenced, good buildings. Address Box 7, Pipestone, Man. 19-20

Ranch for Sale, with an unlimited open range, abundance of good hay and water, timber and shelter, with or without stock, ten miles north of Elm Creek. Apply to Jickling & Sons, Carman, Man. 11

For Sale.—Three Tamworth Boars, fit for service. They are from stock that took first prizes at Toronto and London, in September, 1900. Apply to Lewis E. Hutchinson, Neepawa, Man. 20-22

For Sale.—Young Pekin Ducks, \$1.50 per pair. Toulouse Goslings, \$3.00 per pair; R. C. W. Leghorns and Red Caps, \$1.00 each; Yearling Gobblers, \$3.00 each. Walker Bros., Box 449, Brandon, Man. 20-21

Situation Wanted by practical man as herdsmen. Long experience with all classes of cattle-breeding, selling, showing; also first-class creamery and cheese operator. Best of references. Address X.Y.Z., Nor-West Farmer. 18-21

\$200 per Year with board for a man who understands farm work thoroughly, must be a good ploughman and quiet with cattle. State age and experience together with references; if in vicinity apply in person to C. W. Green Melita, Man. 19

For Sale or Exchange for Young Cattle.—Registered Shorthorn bull, three years old, good stock getter. Prize-winning Yorkshires, boar 1½ years, sow 2½ years, also young sows and boars. S.C.W. Leghorns. John Bray, Logoch, Man. 20-22

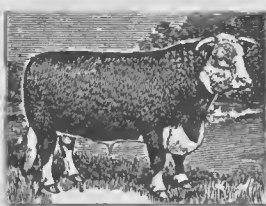
Agents Wanted for the New Pictorial Doctor and Live Stock Cyclopaedia, revised to 1901 with the assistance of the Professors of the Ontario Agricultural College, Guelph Ont. The finest illustrated, cheapest and best book of its kind ever published. Large wages for agents. Particulars mailed free. Address World Publishing Company, Guelph, Ont. 11

For Sale.—Splendid Stock Farm, north of Minnedosa, one half-section, good buildings, nine roomed house, stabling for 80 head of cattle, and a live spring on the place, all fenced, plenty of feed, also 20 Hereford cattle, splendid chance for right man. For further particulars apply to Peter la Boutellier, Clanwilliam, Man., or Myers & Robinson, Minnedosa.

SPLENDID STOCK FARM

Near Elkhorn, will sell astonishingly cheap. rare bargain. Come, see, or write George Snyder, Elkhorn. 480 acres, 220 cultivated, mostly all new land. 70 more to break, remainder good pasture and hay land, 85 acres summer fallow and backsetting; buildings all new, frame house five rooms, with big stone cellar; stone stable 108x38 feet, 2 ft. wall, 9 ft. high; barn double floored, sheathed, papered, sided, shingled, very large fine building; another stone stable 40x24 ft. grainary for 3000 bushels; 2 wells with excellent water; 1 mile from school, 8 miles from town, plenty of pasture for large herd adjoining. 20

POPLAR GROVE
HEREFORDS
Dispersion
Sale of this
Famous Prize-Winning
Herd



Owing to ill-health I will sell my entire herd of about 100 head at close prices. A rare opportunity to secure some splendid show and breeding stock.

J. E. MARPLES, Deleau, Man.



STOCK PARADE AT CARBERRY FAIR, 1901.

Sheep at the Pan-American.

The sheep show was not the drawing card that the cattle one was, and though enthusiasm was high among the sheepmen, the general public did not enthuse in the same way. The quality of the sheep shown was A1, but in numbers they were not quite so well represented as the cattle were. The mutton breeds made splendid showings, the Shropshires and Southdowns being exceptionally strong, well-fitted classes with very keen competition. The fine wool breeds were also well represented. Wm. Beattie, of Ontario, and J. L. Thompson, of Indiana, placed the animals in the Down classes.

Shropshires — The leading flocks shown were four from Ontario — J. Campbell, Woodville; D. G. Hamner & Son, Mount Vernon; R. Gibson, Delaware, and G. B. Phin, Hespeler — and two from New York State — D. G. H. Davison and L. D. Rumsey. Davison had first for flock, Hamner second, and Campbell third. Davison had sweepstakes for both ram and ewe any age. The Canadian breeders more than held their own all the way through, and when it came to the special prizes offered by the American Shropshire Association for American-bred sheep, Campbell's breeding came to the top right along. Out of 18 places he secured 11 of them, and in the contest for pen of five yearling rams, all breeds competing, Campbell won first on Shropshires; A. W. Smith, Maple Lodge, Ont., second on Leicesters, and J. Jackson & Sons, Abingdon, Ont., third on Southdowns.

Southdowns — J. Jackson & Sons, Abingdon; Telfer Bros., Paris, and Robt. McEwen, were the Canadian breeders present. George McKerrow & Sons, Sussex, Wis., and G. A. Drummond, of Indiana, were the American ones. McKerrow had first for flock and sweepstakes ewe, while Drummond had sweepstakes ram and second for flock. Jackson made a good showing all the way through, winning third for flock and quite a few second and third prizes. In aged ewes he had second, third and fourth places.

Oxford Downs — McKerrow & Son, A. Bordwell & Son, New York, and Jull & Sons, Ontario, were the leading exhibitors. McKerrow had both sweepstakes and first and second flocks, Jull and Sons third.

Hampshire Downs — John Kelly, of Shakespeare, Ontario, and J. Milton, of Michigan, were the two exhibitors. Milton had the lead, winning both sweepstakes and first and third for flocks; Kelly second.

Leicesters — Canadians had it all their own way here, the exhibitors being J. Kelly, J. M. Gardhouse, Highfield, Ont.; A. W. Smith, Maple Lodge, Ont., and A. & W. Whitelaw, Guelph, Ont. If anything Smith had the lead, winning sweepstakes ewe and first flock. Gardhouse had second flock, and Whitelaw sweepstakes ram and third flock.

Lincolns — J. T. Gibson, Denfield,

Ont., and J. H. Patrick, Ilderton, Ont., had the field to themselves with honors pretty evenly divided.

Cotswolds — George Harding & Son, Waukegan, Wis., had the only exhibit and were awarded all premiums.

Dorset Horn — M. N. Empey, R. H. Harding and J. A. McGillivray, all of Ontario, exhibited, and R. Stuyvesant, of New York. The latter rather had the lead, winning sweepstakes on ram and first flock. McGillivray had sweepstakes on ewe and second flock, Harding third.

Other Breeds — There were several classes for Merinos and Rambouillets, which were well filled by American breeders. An exhibit of Highland Black-Faced sheep and Cheviots attracted a good deal of attention as well as two excellent exhibits of Angora goats.

The Working Stallion.

A practical horseman, writing in the Ohio Farmer says:—

"Stallions that have been worked regularly and judiciously up to the season for service are always preferable to breed from. Judging from personal observations I have been able to make, I think there is a difference of 5 to 20 per cent. in favor of the colt sired by the stallion that has been worked properly, compared with the colt from same stallion kept idle. The idle stallion may be in better flesh and make a better appearance, but appearances are often very deceiving. The antipathy so frequently shown by farmers against stallions showing the harness marks, and that are not as fat as show hogs, with smooth, glossy coats of hair, is based upon misapprehension. They imagine that such stallions are not pure bred and are of inferior quality, or the owners would not put them to work. This is one reason, also, why owners of stallions hesitate about putting them to work. I have never owned a stallion,

but I need not go outside of my own experience to prove that colts raised from idle and pampered stallions are inferior to those from sires regularly worked. I have a horse nine years old that was sired by an imported Clydesdale that had been kept idle. This horse is well built, large boned, of good size, weight 1,400 pounds, but he is very soft. Heavy work puts him out of condition, but he recovers after two or three days' rest. I have a mare, from same dam, but sired by a common stallion that had been used to work, and she will stand twice as much heavy work as the horse by her side."

This man's opinion, based as it is on penetrating observation, has much more in it than most people see. The working habit is not only a thing of blood; it is in accord with Nature's laws. The sheep-dog is one of the most intelligent of animals, and its aptitude for work, even in its puppy stage, is wonderful. Heredity in its most concentrated form has developed this working habit almost into an instinct. Yet the skilled shepherd will not, if he can help it, try to train a pup from an idle bitch, or the get of an idle dog. The trotting horse that does real work is the sire in that line to breed from, and it conforms with all lines of breeding that idleness is a bad preparation for the functions of maternity, or paternity either. The mare that is moderately worked up to the time of foaling will throw the soundest and strongest colt, and come out best herself. There would be far fewer good-looking nothings if both sire and mare were in regular work of some kind. Pampered animals will rarely throw stock of the highest quality. The great old Prince of Wales left better foals in his old age than in his youth, and those who know give work at the plow most of the credit for this.

"I would not be without The Nor-West Farmer in my family for double the money."
C. S. Lawrie, Kinistino, Sask.

Judging Beef Cattle.

From Professor Craig's new book on "Judging Live Stock":—

Handling — Indicates Condition and Quality of Meat—The handling quality of the prime steer has considerable value in the butcher's view. On this he relies for indications of the steer's condition, and also the quality of the meat. If the covering of flesh is evenly distributed over the steer and it is springy and mellow to the touch, it is considered ready for the block. If in denting the side with the finger the dent lingers some time the condition is due to the soft, flabby fat that brings but a small price at the butcher's stalls. This is quite common in finishing steers to find them flabby in places, most commonly over the loin and about the root of the tail. This patchiness is due to the unevenness of the fat distribution and it is a very undesirable feature.

Condition—A sure sign of the condition of a steer and its fitness for the block is fullness of the scrotum or cod. When a steer is ready for the butcher the scrotum will be soft and large. The condition of the flank is another sign of ripeness. This should be thick, full, pendent, and the lower lines of it should be nearly even with the bottom lines of the body. Another indication considered very reliable is the development of tongue fat or the fullness which appears at the root of the tongue.

Relation of Parts — In the finished steer from the butcher's standpoint the head is of little value, it should be in harmony with the rest of the body and not too large, as that means waste. The neck should be short and thick. The shoulder vein or the juncture of the neck and the shoulder should be full, giving both these parts a characteristic smoothness due to the base of the neck swelling nicely over the shoulder blade. The latter should be well covered and evenly packed on top. The brisket should not be too heavy, as this is very cheap meat, but only advanced enough to contribute to the desired squareness of form. Just back of the shoulder there should be no slackness in the girth. The ribs should be well covered with springy, mellow, vet firm flesh. The loin should be broad and thick; the reason for this is that there are more valuable cuts in the broad, thick loin than in the thin, narrow one, and this region in addition has a high value in the view of the butcher. The hips should be smoothly covered and their breadth should be carried back uniformly. The hind quarters should be long, as this adds greatly to the value of the carcass. The flesh should extend far down the legs with the twist deep and plump. Viewed from the side the top line of the animal and the under line should be parallel or nearly so.

Information comes from Wyoming that flockmasters are selling their sheep in anticipation of a hard winter on stock.



LIVE STOCK AT YORKTON FAIR, 1901.

Type and Function in Cattle.

In a recent issue of the Country Gentleman, Professor Linfield, of the Utah agricultural station, gave a most valuable paper on the significance of type in cattle and its relation to actual performance. The same principle runs through all animal life and underlies our best knowledge of the breeding of domestic animals. This is one of the most lucid and suggestive papers that has come into our hands for some time, and we bespeak for it a careful reading. It is well worth it.

THE SPECIALIZATION OF FUNCTIONS.

The question that first presents itself is, does the type of external form of cattle give any indication of their productive abilities? Among students of animal form the answer would undoubtedly be, Yes. While not an absolute guide, yet it is a point to be given a large measure of consideration by both buyer and breeder.

The common cattle of Europe and America appear to have descended from the wild cattle which roamed in the forests of Europe. From remains that have been found, there appear to have been two or three types of those wild cattle, which varied considerably in size. Whether the domesticated cattle have descended from one or a mixture of those wild types, it is not possible to determine. Like all wild animals, they were possessed of vigor of constitution and that hardihood necessary to withstand the adverse conditions of nature surrounding them. Their purpose in life, if we may so speak, was but to perpetuate their kind and give their young a start toward self-maintenance. The qualities possessed were the same in kind as those of the domesticated cattle of to-day; they differed only in degree. When feed was plentiful, they fattened, but were strong of bone and long of limb. For their young they produced milk, but not more than enough to satisfy its needs for the first few months of its life. In the amount and quality of their products they fell far behind their descendants as represented by the pure breeds of to-day.

In the description of types it seems to me that many stop short of naming them all, and this has led to comparisons that were unjust, and to wordy combats that a little broader conception would have shown to be uncalled for. From the standpoint of utility or economy, there are four types of cattle—the dairy, the beef, the dual-purpose and the no-purpose. The first three have a fairly constant form, while the latter appears under a great variety of exteriors and is often a degenerate type of animal, the result of bad practice in breeding, feeding and management.

HOW TYPES ARE MOULDED BY HUMAN SKILL.

The highly specialized modern breeds are the result of man's care applied through many generations, and are proof positive, first, of man's power, and second, of the plasticity of the animal organism. It is a promise and an encouragement for us, as by the methods others have pursued, we also may advance the qualities of the live stock on our farms. The qualities possessed are largely the result of our management, and if the animals do not come up to what they should, the methods of improvement are open to us, and the responsibility for the results rests at our own doors.

In the study of the evolution of type an interesting inquiry is, what were the causes that produced the present form of the animal? Undoubtedly different causes might be assigned, and even different forces may have been used in different cases, while perhaps at times a combination of causes would tend to mystify any study along this line. In the beginning of things, undoubtedly, function or the ability to do was the prime factor in the improvement. It furnished the starting-point, but later, when function had been an active force for some time, it was noted that as a rule the best doers had a certain form

THE WESTERN FARMER'S LIVE STOCK INSURANCE CO.

D. PRITCHARD, President.

H. S. Paterson, Secretary, P. O. Box 1382.

The best insurance is when risk is greatest. Claims paid for nine months ending September, 1901, \$4,000.

Write for particulars. AGENTS WANTED

TO FARMERS

And Farmers' Sons.

To the Editor.

Dear Sir,—We believe no class of men deserves to enjoy the benefit of Life Insurance as much as farmers. There is certainly no class which needs it so much. The property a farmer leaves to his widow is usually in land, which, as a rule, cannot be made to earn interest, no matter whether men are hired by the widow to work it or whether it is let to another farmer. The wealth of other classes is usually left in money or village property, which earns interest without any trouble. The widow of a farmer is therefore under a serious disadvantage, even if she owes nothing on the farm in the form of a mortgage. When there is a mortgage the property is surely lost, unless she has the insurance money to pay the mortgage off. The fact is, and every person knows it, \$2,000 in cash will give a widow more comfort and income than a \$5,000 farm.

Fortunately there is no class which is in so good a position to avail themselves of this benefit as farmers. The professional man, the business man and the mechanic are liable to have their incomes cut off at a moment's notice, whereas the farmer's income, though perhaps smaller, is more certain, if he lives—"Aye, there's the rub"—if he lives.

The foundation principle of the Great-West Life Assurance Company is mutual protection and assistance. No one man would be justified in saving to his neighbor: "If you will give me \$100 per year, I will give your family \$5,000 when you die," because his neighbor might die in a year, and thus, perhaps, ruin any man who made such a proposal. But when this risk is spread over thousands of members, the contribution from each is only a trifle. If you cannot make that bargain with your neighbor, how can you do it for yourself?

It is surely not necessary to dwell on the benefits of Life Insurance. We shall only give a quotation from Rev. Sam. Jones, the noted American Evangelist: "It is not well 'that the pale wife who has watched you 'and your children in sickness and in health, 'and who seals with her white and tender 'hands your eyes in death, should be 'unprovided for after you have passed away. 'It is absolutely in your power to prevent 'her suffering; it is your duty to do so. A 'man's highest ambition in life, next to the 'salvation of his soul, should be to provide 'for those whom God has committed to 'him, not only while he lives, but after his 'arm is paralyzed in death.'"

Don't forget that to be poor and weak is to be friendless and miserable, and don't forget that many a poor young girl has gone to ruin because she had not enough to pay for the bare necessities of life.

Any agent of the Great-West Life can give you the rate for any policy you prefer, but the Company is issuing a policy particularly suitable to farmers.

There is no entrance fee to be paid. There is no fee to be paid to medical examiner.

The policy calls for 20 payments only. After three years you can stop payments at any time and receive at death \$50 for every payment you have made.

If you complete your payments you can cash the policy. If you desire to do so.

During the 20 years the Company allows you to withdraw part of your money at any time after the policy is three years old.

The amount of loan available is stated on the policy.

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In event of death during the 20 years, \$1,000 is paid and policy cancelled.

Yours truly,

A FARMER.

Choice Shorthorn Bull Calves

Five choice animals from 7 to 12 months old. They all take after their sire, Trout Creek Hero. They are low-set and blocky right down to the hock.

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SCOTCH SHORTHORN CATTLE.

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Stock of all ages and sex for sale. Write for what you want. Stock from my stud and flocks have won highest honors at Chicago, London, Toronto and Ottawa.

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Wanted—Farmer's Sons with knowledge of farm stock and fair education to work in an office; \$45 per month with advancement; steady employment; must be honest and reliable. Branch offices of the Association are being established in each Province. Apply at once, giving full particulars. Address, The Veterinary Science Association, London, Canada.



All thoroughly guaranteed. Sons of the champion Clydesdale sires Baron's Pride and Prince Alexander. Every animal in the lot a prize winner. Call early and examine the best lot of horses in Manitoba.

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Beaubier Stables, BRANDON, MAN.,
a choice lot of
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Percheron,
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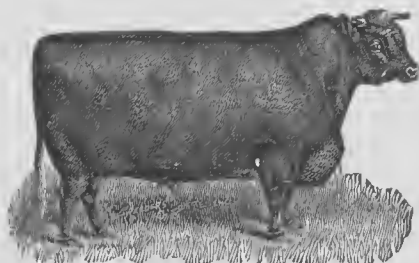
CLYDESDALES SHORTHORNS SHROPSHIRE
BERKSHIRES YORKSHIRES

Shorthorn herd headed by Judge, imp. Jubilee and Ribbon's Choice. Ayrshires of the best quality, herd headed by Surprise of Burnside. Oak Lodge Mighty 7th and a large number of high-class sows represent the approved bacon type of Yorkshires. The Berkshire boar, Victor (Teasdale), sweepstakes at Brandon and Winnipeg, 1900, and 30 sows of faultless conformation and superior breeding, make up the Berkshire herd. Farm one mile from the station. Visitors welcome. Prices and quality right.

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Sweepstakes winners, male and female, 1901. Home bred Shorthorns bred here.



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One yearling bull, roan, \$75. Pigs of all ages at reasonable prices. My herd is headed by Emperor, 1st prize at Winnipeg, and contains such sows as Jubilee Belle, 1st at Winnipeg; May Queen, 1st at Winnipeg; Golden Lass, and others as good. Write for what you want. Satisfaction guaranteed.

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ARE THE CORRECT TYPE TO BRING THE GREATEST PROFIT.

We breed our winners, and we win more prizes than all other herds combined at Toronto, London, and other large shows. Sweepstakes in bacon classes over all other breeds in dressed carcass competition, also on foot, for two years in succession. Championship carcass in bacon class at Chicago, 1900. First-prize herd at Toronto Industrial for nine years. Write for prices.

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TERMS EASY.

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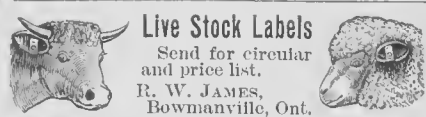
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Importer and breeder of high-class Shorthorns, Cotswolds, Berkshires, Toulouse Geese, B.P. Rocks. I usually have some of the best for sale in young stock. Spring pigs fit for shipping, and more coming. B. P. Rock eggs. Order young stock now and save freight. Visitors always welcome, and met at the train when notified, and returned there.



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Choice bred Shorthorns and registered Clydesdales. One yearling stallion and some choice mares and fillies for sale. One imported yearling bull, also young bulls sired by Caithness, and a few good show heifers, cows and heifer calves for sale, from Caithness.



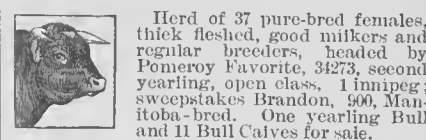
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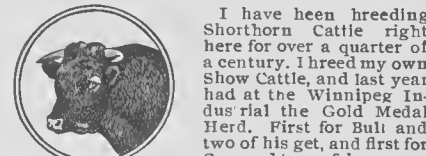
DUAL PURPOSE SHORTHORNS



Herd of 37 pure-bred females, thick fleshed, good milkers and regular breeders, headed by Pomeroy Favorite, 3rd, 2nd, second yearling, open class, 1st in prize; sweepstakes Brandon, 500, Manitoba-bred. One yearling Bull and 11 Bull Calves for sale.

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PIONEER HERD OF SHORTHORNS



I have been breeding Shorthorn Cattle right here for over a quarter of a century. I breed my own Show Cattle, and last year had at the Winnipeg Industrial the Gold Medal Herd. First for Bull and two of his get, and first for Cow and two of her progeny. I usually have stuff for sale and am always pleased to show it.

WALTER LYNCH, Westbourne, Man.

When writing, please mention The Nor-West Farmer.

in common, and thus form became associated with the ability to do and the two points were considered in the selection. This would accelerate results, as it would tend to prevent breeding from that form which did not give the highest results at all times. But while this development has been going on, unconsciously we have been training the nervous forces of the animal, those forces closely associated with, or a part of, the brain and the vital forces. The continued doing of a certain thing through many generations, tends to develop that nervous disposition that is best fitted for doing the work required, and making it hereditary in the organism. Thus has been produced the animal temperament, which later than the points of function and form, has entered into the study and calculation of breeders in their selection, and has tended to still further accelerate the getting of quick and definite results in breeding. These points are illustrated from the following study of the types of live stock.

THE ORIGIN OF THE DAIRY FORM.

In the dairy we have a striking illustration of the effects of function upon type. Without doubt, milch cows were first selected because of their large yield of milk. A systematic selection along this one line has unconsciously caused other changes. The largest milking cows were the largest feeders, and so followed a large development of the digestive apparatus. In the same manner the gland in which the milk is produced, the udder, has kept pace in size and development with the yield of milk. Again,

historical popularity depends upon the ability of his daughters, grand-daughters, etc., in a direction in which nature has built a barrier against him. He is truly an illustration of unconscious selection as regards his form; yet he is not the less, perhaps even more, worthy of our study, because of the above facts.

The special dairy type is clearly marked—the wedge-shape angular form, spare habit of body and the well-developed udder, which because of the lightness of thigh shows to good advantage. A cow of this type, associated with great productive capacity, is a most economic producer—in fact, I believe, the most economic producer of food kept on the farm, except perhaps the hen. It is a fact worthy of note that the food products which are the immediate result of maternity in animals are produced at the least cost—or to put it otherwise, those organs of the animal which are associated in maternity convert the food of the animal into products useful to man with much less expenditure than the meat-producing forces; in other words, they are much more efficient. To be concrete, a milch cow, from food similar in kind and amount to that given a beefing animal, will produce in a day or a year more than twice as much dry matter in her milk as the beefing animal of similar age and weight will produce in the gain in live weight. The good dairy cow produces her own weight in dry matter every year, and produces it in the most readily assimilable form. Not only is this so, but at the average price at which milk and its products are sold, they are, considering their nutritive value, the



BOYS FROM INDUSTRIAL HOME PICKING MAPLE SEEDS IN FRONT OF SUPT. BEDFORD'S HOUSE ON THE BRANDON EXPERIMENTAL FARM.

mals least removed from the ancient wild types produce the best meat—that which is the juiciest and best marbled. We see this in the West Highland and the Galloway, the meat from which is classed as the best in the London (England) market. Some reason that the natives, or common stock of the country, are good illustrations of the primitive stock, but this is not true. Many of these native stocks are an indiscriminate mixture, and largely degenerates, as scarcely any selection has been practiced upon them—not even that natural

duced and the manner of its distribution.

With the beef cattle, as with the heavy horse, form and function are closely related, so that form has played an important part in the selection. That animal with a broad back and loin, a long, well-sprung rib, and a wide, well-filled quarter, is the animal likely to have the largest amount of more valuable cuts of meat.

Again, those animals will probably fatten best which are the least excitable in temper; and so selection for the best, the animals that fatten quickest, would in time give that quiet, lymphatic temperament that characterizes the beefing animal. The cultivation of the habit of meat production only, for many generations, would also tend to make the forces of the animal body direct the food given into body flesh.

THE TYPICAL BEEF FORM.

The typical beef form is too well known to need any special comment. Note the straight top and bottom lines, the spread of the ribs, the depth of body, the legs making only one-third to two-fifths the height of the animal, the fine head and bones. The animals are nearly all meat, with a minimum of waste. They will dress from 65 to 68 per cent. of carcass to live weight, while the proportion of valuable cuts is large. It is because of these points that the animals of this form command the top prices in the market when they are fattened.

The improved beef (like the improved dairy) animal appears to be a larger producer of meat, and gains more per day than the unimproved animal; but unlike the dairy cow, the improved beef animal does not seem to be a more economic producer, or from a given amount of feed does not gain more in live weight than do the unimproved types. It is rather strange that an animal which eats one and a half to two times as much will only gain one and a half to two times as much per day when we are dealing with animals of uniform weight and age. The logical conclusion would



BUILDINGS ON ACADIA FARM, THE HOME OF W. F. FINCH, VIRDEN, MAN.

the best milking cows were those which utilized all their food for milk production, and so selection for milk alone would tend to train the animal to that spare habit of body, which is characteristic of the best milking cows. There is no farm animal which yields so large an amount of produce per day as does the good dairy cow when giving a large flow of milk. This great rapidity of production, in addition to calling for a plentiful supply of food, also calls for activity in all the constructive forces of the body. The good dairy cow is working under a high nervous pressure. We thus find her to be an animal with a well-developed nervous organization. We call it a nervous temperament. Thus was evolved the dairy type. The milking function, through a long period of time, has produced these secondary changes, yet is not dependent upon them. Those who select for form or appearance only will find themselves with those who not many years ago selected Jerseys for their appearance, or for fancy points; they had Jerseys, but not dairy cows. Beware of the pure bred, which is lacking in the ability to do!

In this connection, the type of dairy bull is rather a unique production of the breeder's art. Apart from his strong masculinity, he is valued mainly because of what his dams were—his pedigree on the maternal side. The form he has assumed is the unconscious result of the system of management and selection applied, not to him, but to his dam. His

cheapest of animal foods. For instance, with milk at 2c. per quart—farmer's price—one pound of dry matter in milk would cost 8c., while with beef at butcher's price, 10c. per pound, one pound of dry matter in edible beef would cost from 20c. to 25c. per pound, a very favorable showing for the dairy cow. Again, the improvement effected in the milk-producing capacity of the cow affords one of the most remarkable illustrations of improvement in the productive ability of domestic farm animals. From a given amount of food the improved dairy cow will produce double and sometimes a larger amount of milk and butter than will the unimproved cow. The increase in efficiency has been in quantity in most instances, though in others in quality also. The dairy cow will long continue to have a place as a concentrator of the cheap, coarse fodders of the farm.

However, it is well to bear in mind that the dairy cow, as a meat producer, is not a scrub, as she, like the beef animal, has developed a large capacity for handling food. When not milking, she fattens readily, but does not put as large a proportion of her gain into the valuable parts of the carcass as does the beefing animal, and thus the animal bred on dairy lines does not command the same price in the beef market.

THE BEEF TYPE AND TEMPERAMENT.

The function of the beef type of cattle is to produce meat—a primitive function with all cattle, as those ani-

selection which is ever present in the wild state.

The efforts of the improvers of beef cattle have been directed toward retaining the quality of the meat (as note Bakewell's careful study of parts), while increasing the amount and thickness of the flesh carried by the animal, and shortening the time for its production. Nearly all experimental data tend to prove that all types of cattle make the same use of their food—or, in other words, for the same food gain as much in live weight. The main difference relates to the place where the flesh is pro-



FARM HOME OF JOHN KITSON, MACDONALD, MAN.

appear to be that beyond a certain stage it required as large an expenditure on the part of the organism to lay on flesh as to maintain life. Experiments seem to show that if an animal on 15 lbs. of dry matter a day gains one pound per day in live weight, and two-thirds of the food goes for food of support, then an animal of equal weight and age that eats one and a half times as much, or 22½ lbs. of dry matter per day, will gain only 1½ lbs., and would appear to require one and a half times as much for the food of support or for the work of the body. The improvement in the beef animal has not, therefore, been in any improved efficiency of the animal as a meat-producer, nor can it be said to have improved the quality of the meat over that of the wild types. The direction of the improvement seems to have been to increase somewhat the proportion of edible meat and to shorten the time of its production. These points are, however, of considerable value, as they mean quick returns and an increase of from one to two cents per pound live weight to the producer. If the meat were valued according to its food value, and not according to its market value, the difference in price would be very much less, but it is the market value with which we have to do.

About Breed Type.

In our last issue we spoke of the selection of breeding sheep. An article by J. McCaig in the American Sheep Breeder goes to the core of this and all other departments of breeding. Though mainly applicable to sheep, please note how it harmonizes with our views on the selection of ewes especially:—

"The operations of shepherding are comparatively simple but the education of the shepherd is never completed. Experience and observation constitute just as important a part of a shepherd's assets and capacity of turning his art to profit as these do in any other industry under the sun. Perhaps the evolution of the shepherd's ideal goes on something like this. (We prefer to leave our own breed out of the literary columns and confine them to the advertising columns, but it is easier for us to illustrate by them). A man who has not been in the business, say a professional man, takes a fancy for some line of live stock (we like to see professional men do this, too, for it is independent rich men of means that give substantial help to the build-up of breeds to say nothing of the recreation and pleasure it is for a jaded man). He hears a good deal of talk about Shrops and decides to purchase a ram and half a dozen ewes. Now he doesn't know much about sheep and consequently cannot know much about individual breeds, but as a man with an idea prefers to do, instead of trusting to the honor and judgment of a breeder who has a reputation to lose, which is the best way, he goes into a flock of ewes within reach. You Shrop men all know what they will look like. There will be some lusty fresh coated yearlings that do not spread out so widely and comfortably as others but heavily covered and straight. He doesn't want those, they are little fellows, he says. Then there is a class of twos or threes that have been reduced by milking or rearing their first lambs. They look like poor thrivers to him, but they raise the most symmetrical and best fleshed lambs of the flock. The third class are old heavy matrons that have been through their best work and are quiet in countenance (as well as bare) but they look broad and comfortable, are broad rumped after the fashion of old ewes. In short, they are big in the eye. It is the case, too, that sometimes a good ewe in the eye hasn't the fashionable hood and face wool, indeed, it sometimes seems that the flock that has been bred for the everlasting face wool sometimes is a mean flock. The new buyer hasn't heard of face wool and he wants some of the big ones, anyway. He gets them home. They are a good enough lot, too, but his education has just begun.

It takes him five years to learn what is meant by a straight upper and underline, to learn the value of young and fresh condition. Besides this he has to eliminate from his conception, bare legs and faces, long cars, uneven fleece or light fleece, dark skin, black fibre, brown wool, long legs, round bone, narrow loins, high shoulder, weak crops and heart and a dozen other things. Quite a task, and there is quite a difference among men with regard to their sensitiveness and susceptibility to new ideas.

The first lesson for a beginner is to get the fundamental idea of good animal form generally; that the most economical beef or mutton shape is the solid figure twice as long as it is deep and wide. Then he must study the best types of his choice of breed represented by the best individuals of the best known fanciers and promoters of his breed. The exhibitions are an education particularly to those who know mostly everything about sheep before. But we have just come from sympathizing with a novice who bought an expensive bunch of exhibition sheep. He had only one complaint, and that was that after he had sheared them the sheep disappeared."

The old sow is usually the best breeder, but it is not always wise to hold on to her too long. A few of the best of the most likely young sows should be put into the breeding pen so as to have a new supply coming forward.

In getting together a bunch of steers to place in a yard or pen for feeding see that they agree with each other and that they are as near the same age and size as possible. Then be uniform in feeding as to time and quantity and quality of food.

"I can assure you that I am an enthusiastic admirer of The Nor-West Farmer."—John B. Parker, Umatilla, Man.

Dairymen, Take Notice!

Calf meals and cream equivalents are not necessary for calves. All the bone, muscle, nerve and flesh are in the skim milk, and one ton and a quarter of skim milk can be made equal to new or whole milk for calves by adding fifty cents worth of Herbageum, while the cost with any calf meal or cream equivalent is about two dollars, and the general results are not as good as with Herbageum.

It is also worthy of note that fresh whey and Herbageum for calves or pigs give excellent results, and that for general use with all classes of animals Herbageum is of real value because it keeps the whole system right. Where it is regularly used there will be no lice on calves, colts or poultry, nor will there be ticks on sheep or lambs.

Do not be deceived by those offering calf meals or cream equivalents, but write The Beaver Mfg. Co., of Galt, Ontario, Canada, for full information. Herbageum is for sale in almost every village in Canada. Enquire for it, but as several inferior imitations have been placed on the market, be careful in buying that the word "Herbageum" (registered) is on the bag, also The Beaver Mfg. Co., Galt, as they are the sole manufacturers.—t.f.

Herbageum is manufactured by the Beaver Mfg. Co., Galt, Ont., and can be purchased in nearly every town and village in Canada.

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In every locality throughout Canada to introduce our goods, tacking up show cards on trees, fences, along roads and all conspicuous places, also distributing small advertising matter. Commission or salary \$50.00 per month and expenses not to exceed \$2.50 per day. Steady employment to good, honest, reliable men. No experience needful. Write for full particulars.

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Two Boars, fit for service, \$15.00 each
January and March pigs of either sex of good quality. One sow in pig, due to farrow in August. Address

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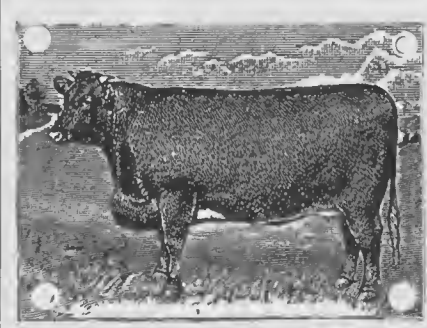
From seven months to one year old. Head of the herd, Lord Stanley 25th. Correspondence solicited.

Walter James - Rosser, Man.

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Two young stallions by Prince of Wales out of Nancy McGregor, and fillies of breeding and quality. TULLY ELDER, Proprietor, Glen Souris Farm, BRANDON, MAN.

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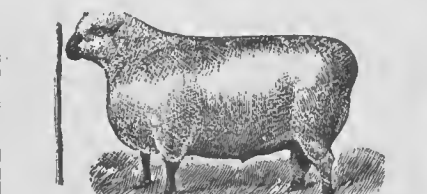
This herd also won the Open Herd Prize against all comers and first for bull and two of his get. This is the Herd to buy from.

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Number of choice heifers. Boars 5 to 7 months old. Winnipeg prize-winning sows due to farrow. Place your orders now. A number of large, strong W. P. Rock cockerels for sale.

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Herefords Herd headed by "Sir Ingle-side 2nd," descended from the famous "Corrector."
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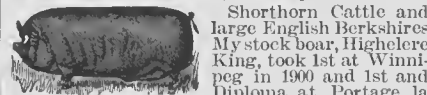
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Some good **Holstein Bulls** FOR SALE

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Maple Grove Farm, Portage la Prairie.



Shorthorn Cattle and large English Berkshires. My stock boar, Highclere King, took 1st at Winnipeg in 1900 and 1st and Diploma at Portage la Prairie, 1901. A grand lot of young stuff of both sex for sale; also a few M. B. Turkeys. Call or write. Parties met by appointment.

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CLYDESDALES.

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Two, three and four-year-old Colts, sired by such noted stallions as

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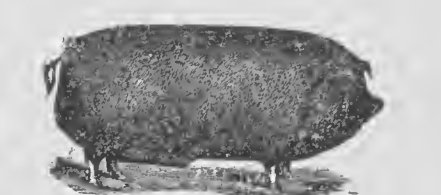
These horses are of the finest quality, good action, good large flat bone, the best hoofs. Some of them prize winners in the old country, and all of them large. For further particulars apply to

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Yearling Colts by Patrick and Macgregor for sale.

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POLAND CHINA And TAMWORTH Swine



One of the best herds in the Dominion for show and breeding. Show-ring record proves this assertion. Klondyke Gold Dust, 1453, and Hayfield Pride, 1880, the equal of any males East or West, used in this herd. Sows from the noted prize-winners, Manitoba Chief, 1221, Chief Radiant, 38839, Free Trade Sanders and other strains. 40 spring pigs for this season's trade. If you want a good show pig or a herd header, write. We have just as good as can be found East or West. Give us your order—we guarantee satisfaction. Prices reasonable.

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The largest herd of Registered Galloways west of the Great Lakes. Send for catalogue to

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Clydesdale Horses

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I have a number of promising young Stallions for sale.

My shorthorn herd is headed by "Best Yet," bred by Hon. John Dryden, of Brooklyn, Ont. A number of young stock of both sexes, all registered, are for sale, and can be recommended as first-class animals.

Correspondence solicited. Prices right.

Thorndale Stock Farm

24 SHORTHORN BULLS
30 " FEMALES

For sale. They are a good strong lot. Write to

JOHN S. ROBSON, Manitou, Man.

The Gold Standard Herd.



Prize winning Berkshires at reasonable prices including the following Winnipeg winners: "Duke of Clifford," two years old, never beaten in the show ring, first in his class in 1900 and 1901. "The Baron," bred by Thos. Teasdale, Ontario, second prize under 12 months, 1901. Two prize winning sows in class under six months. Three nice sows farrowed in March off first prize sow and litter at Winnipeg. Spring pigs, also August and September farrows at right prices. Address

J. A. MCGILL, - Neepawa, Man.

One for the Holsteins.

In the model dairy at the Pan-American exhibition one of the noticeable features is the manner in which the Holsteins have maintained their large flow of milk. They have, in fact, shown the least inclination to decrease as the season advances of any breed in the stable. A study of the rations fed to these cows will in a measure account for these results. At the time green feed was first furnished, the herdsman in charge of these cattle cut hay entirely out of his rations and also reduced very materially his grain feed, making the bulk of the Holstein rations from green feed. Now, when the time has come that no green feed is given and dependence must be had on silage, by returning to the amount of grain that he fed in the beginning of the season, he has been able not only to keep up the flow of milk but to advance his herd above the position that they occupied during the summer, thus again demonstrating the fact that excessive grain feeding for a long period is not always conducive to profit or production, particularly in combination with green forage crops.

A knowing horse is easily trained and hence is the more valuable animal.

Variety in feeding belongs to profitable stock growing with all animals.

The best time to clean the mud off the horses' legs is before it gets dry.

In marketing stock evenness in quality and size should always go together.

In selling mixed lots of stock the best inferior suffers by being sold with the inferior.

In selecting the breeding sows a strong maternal instinct should be the first consideration.

With abundance of feed, this should be a good year in which to put up a nice bunch of steers to fatten.

The quality of the meat produced is surprisingly affected by the food and management during growth.

To obtain the best results in breeding, a sow should be in good flesh and gaining, not over-fat when bred.

One of the principal advantages in providing good warm shelter in winter is the saving of feed that is possible.

While it is an item to feed stock as economically as possible they should not be allowed to run down in condition.

There should be sufficient room in the sheep's quarters for them to all eat at the feed-racks and lie down comfortably.

Once testing of your cows won't do. Test for a month or six weeks and note results. Give them a good chance. Don't condemn hastily.

To describe the Jersey cow in plain language, she might be called "an improved churn with a leg at each corner," and thereby hangs a tail!

Winter will soon be here. Remember the stables must be warm and comfortable and be well ventilated if you wish the dairy herd to be profitable through the winter.

The cow and the pig don't look alike, they don't speak the same language, but they are co-operators on the farm, and after the manner of co-operators they make it pay.

Buttermilk is of equal value to skim-milk for pig feeding when it has not been diluted with water. We should be careful and save all waste from the dairy for the pigs.

The Pan-American horse show was held from October 7 to 19. It was very complete in all the classes from the smallest pony upwards. It was quite a task to remodel the stables, 5,000 feet of lumber being used for the front of the mangers alone. The stalls for stallions are 10 feet wide, and 5 feet for other horses.

AMONG THE BREEDERS.

W. F. Crosbie, Manitou, Man., is giving up his poultry business entirely, and offers his White and Barred Plymouth Rocks for sale. See advt. in this issue.

J. C. Pope, Regina, reports the sale of one of his prize winning Ayrshire bulls, Prairie Chief, to J. H. Bunnell, of Moose Jaw. We understand the price paid was quite a satisfactory one.

John S. Robson, Manitou, Man., writes:—"About one-third of the crop stock has done well here this summer. I have sold four young huls this fall. We are having very bad weather, there being quite a lot of grain not stacked or threshed yet."

The highest priced Shorthorn herd sold recently in the State was that of E. S. Donahay, Newton, Iowa. W. D. Platt bought one female at \$1,475, and another female sold at \$1,560. The 41 females sold averaged \$645. A neighbor of Donahay's sold next day, his top figure being \$1,000, with an average of \$225, several animals being under a year. Another Iowa sale, that of S. C. James & Son, averaged \$367 for 47 females.

The remainder of the Thoroughbred horses of the late Marcus Daly's stud were sold at New York on Oct. 1. He had American bred mares taken to England and bred to the best stallions of the breed and brought out English mares to the States. The prices got were very high. A mare, Lady Reel, 18 years old, was taken off at \$11,000, and Pocahontas, 10 years old, made \$17,000. In imported mares, Field Azure, by Bend Or, made \$18,500, Optimo, by Orme, \$6,000, Lucy Cross, by St. Simon, \$17,000. One two-year-old colt made \$6,500. The yearlings sold still higher. A filly by St. Simon, \$16,000, a colt by Ayrshire, \$15,500, a weanling by St. Simon out of Lady Reel made \$25,000, and one by St. Simon out of Field Azure \$13,600.

Knight & Son, Cardston, have made some heavy purchases of sheep in Montana recently. From the Conrad Investment Co. they secured 23,000 head, 7,000 from Fairfield & McCuaig, and 7,000 from Jesse F. Taylor. They have also purchased 4,000 head of fine Shorthorn grade cattle from Eastern Canada and 1,000 head from Utah which they have put on their splendid ranch, which comprises about 32,000 acres. The ranch is surrounded by an excellent fence which was built at an expense of about \$125 per mile. The settlers greatly appreciate the fact that Mr. Knight and his sons have come into their midst and are making such liberal investments. They furnish employment to all those who need it and pay liberal wages.

At Illinois State fair, held at Springfield, the Shorthorn show brought together some of the greatest show cattle on the American continent. W. D. Platt and Boland went in from the Pan-American, and the champions of the middle west were there to face them. One curious feature of the case was that the judging was done by a Hereford breeder. The net outcome was that Platt's aged bull, Valiant, was first; Harding's Golden Victor second, Robbins' Lad for Me third. Platt's Speculator next. In two-year-olds, Platt led with Lord Banff. In aged cows Robbins' Ruberta beat Cicely, the hitherto unbeaten champion. In group championship Platt was first, Robbins second, Harding third. Valiant had male championship and Lord Banff reserve. In female championship Ruberta was first and Cicely second.

W. L. Trann, Crystal City, Man., writes: "Among recent sales from the well known Boundary Herd of Poland China and Tamworth swine made through my advt. in The Farmer, are the following:—Poland Chinas—pair, hoar and sow, each to George Lloyd, Langdon, Alta.; John Weir, Oakville, Man.; John C. Pack, Carnduff, Assa.; A. W. Klassen, Morris, Man.; J. J. Brown, Winkler, Man.; and John Stewart, 1-12. Boar and two sows to John A. Peters, Reinland, Man. Boar each to Jonas Christie, Glenboro, Man.; D. Wright, Wellwood, Man.; Heinrich Wiehe, Reinland, Man.; Peter E. Wall, Reinland, Man.; Angus Dashney, Elgin, Man.; Wm. Elliott, Sidney, Man.; G. M. Smith, Margaret, Man.; and Peter Zurhick, Morden, Man. Bred sow to C. E. Whitman, Hannah, N. Dak.; and Wm. Belfour, Hannah, N. Dak. Tamworths to the following: Boar each to Jas. L. Bradley, Cartwright, Man.; R. Oliver, Carberry, Man.; and M. B. Halpenny, Neepawa, Man. Bred sow to Jas. Glennie, Longhurn, Man. We have still on hand a few good sows of April farrow, and if not sold soon will be bred to my imported boar, Night No. 61237, which will be sold when safe in pig. We have also a lot of August, September and October pigs of both breeds, which we will sell at reasonable prices."

The Farmer is sorry to learn that J. E. Marples, Deleau, Man., well known as a successful breeder of Hereford cattle, has been for some time in poor health and that as a consequence he has decided to dispose of his herd of cattle by private sale. Notice of this sale will be found in our advertising columns. This should be a rare opportunity for beginners to secure a choice lot of foundation stock. When Wm. Sharman gave up breeding Herefords in an extensive way Mr. Marples bought out his entire herd. He thus added to his own good ones another capital lot of first class stock. Those who have attended the Winnipeg shows need no remind-

ing of the condition in which these animals have been presented in the show ring and of their winnings. Mr. Marples has always had at the head of his herd a high class bull. The winning of the herd of H. D. Smith, Compton, Que., at the Pan-American Exposition, Buffalo, is fresh in the minds of our readers, and Mr. Marples' herd is full of the best blood from the Compton herd. Spotless of Ingleside has done grand service at the head of the herd and many of the young stock and show yard winners are sired by him. He is by Young Pinkham and out of Spot 3rd. He has also a younger hull, Daymoor of Ingleside, by Mark Hanna and out of Daymoor Brenda. Mark Hanna has been sweepstakes bull at Toronto for two years in succession and this year was sweepstakes at the Pan-American. Another bull that was in Mr. Marples' herd, Rex 2nd of Ingleside, is by Sir Horace, champion of the Maritime Provinces and second to Mark Hanna at the Pan-American. It will thus be seen that in breeding Mr. Marples' herd is up-to-date in the best blood of the continent. His females are equally as good in breeding and parties desiring to secure a good foundation herd or make additions to what they already have should lose no time in corresponding with Mr. Marples.

Alex. Galbraith, Janesville, Wis., writes: "I have shipped to-night to Brandon, Man., a car load of very superior stallions—four Clydesdales, each three years old, all imported horses, and every one a prize winner. I have also sent one of the best Hackneys in the west, a prominent prize winner at our recent State fair and also at Madison Square Garden, New York. The other horse is a Yorkshire Coach, and all of them are not only individually of great merit, but their breeding is ultra-fashionable." This car will arrive in Brandon about Saturday, the 19th, and will be found at the Beaubler stables in charge of Mr. Galbraith's trusted agent, James Smith. The Yorkshire Coach horse, Baronet, was foaled in the spring of 1887, and bred by James Thorpe, Malton, England. He is a stylish bay and a good breeder. His sire is King Otto. The dam of Baronet was by Candidate (64), a first prize winner at the Yorkshire show in 1875, and sold at a high price to go to New South Wales. The Hackney stallion, Prometheus, by Rufus Junr., is a bay, foaled in 1893, and has had second in a very strong class at New York, also first at the State fair of Wisconsin in 1901. His pedigree goes back through the very best blood in England. His sire, besides numerous other prizes of great value, was champion of all ages and sizes at New York. His dam, Conquest, won 17 first prizes before leaving England. As a sire he has been a conspicuous success in every way. The four Clydesdales were all purchased in the old country this season and imported by Mr. Galbraith in September. Gartachol, 10200, is a beautiful brown, with face and three legs white, bred by Jas. McConnell, Boreland, Wigtownshire, Scotland. He was foaled in June, 1898, and is by Prince of Galloway (8919), by Prince of Wales, out of Elspeth MacGregor, by Macgregor. The dam of Gartachol is Grace, by Fordham, by Top Gallant, by Darnley. Her dam is Helena, by The Maister. Another horse is Allick's Pride, 10197, a bay, with white face and three white feet, foaled in May, 1898. He was bred by J. M. Hannah, Girvan, Scotland. His sire is Prince Alexander (sold as a yearling for £600, and won first and championship at the Highland and Agricultural Society's show the same year), by Prince of Wales. The dam of Allick's Pride is Countess of Girvan, by Old Times. Allick's Pride had the Kinross £100 premium for 1901. Pretoria, 11133, is a brown horse rising three years old, sire, Petrichio, a son of the great champion and twice winner of the Cawdor cup, Prince of Carruchan. He had the Calithness Agricultural Society's premium of £100 for the year 1901. Baron's Style, 10690, is a bay, foaled in April, 1898, and a son of the renowned Baron's Pride, out of Stylish Lady.

No matter how careful a selection a breeder may make he is sure to get some animals that will prove unsatisfactory as breeders. As soon as such an animal is found she should be disposed of.

Horses on a farm should be barefooted, like farm boys. The feet of each one are equally benefited by having them unhampered. One writer says that both horses and boys should go barefoot habitually until they are 14 years old. This is the rule. The exceptions occur only on special occasions.—Farm and Ranch.

Instead of burning so much straw this fall, make preparations to use some of it as feed for young stock. In this respect young cattle are more profitable than older ones, for they have their growth to make and thus are bound to grow more quickly into money. Given anything like a fair show, they will make money for their owner during the winter, when they can be sold to go on to the range if there is not pasture enough at home for them.

When writing, please mention The Nor-West Farmer.



A few **ENGLISH BERKSHIRE PIGS**, good ones, not akin, largest in Manitoba.
M. B. TURKEYS, fine ones.
TOULOUSE GEESE, fine ones.
B. P. ROCK COCKERELS, nice ones.
WM. KITSON, Burnside, Man.

ALEX. D. GAMLEY
The largest flock of
LEICESTERS
in the West. Stock of both sexes always for sale.
Balgay Farm, Brandon, Man.

F. W. GREEN,
Moosejaw, Assa.
SHORTHORNS
Herd headed by Royal Aberdeen and containing about twenty choice females.
Several young Bulls for sale.

PEDIGREED COLLIE DOGS.
Scotch Collie (sable) dog pups, sired by Merlin, reserve puppy at Chicago in 1896.
Fox Terrier puppies for sale in April, sired by Norfolk Bowler, brother of champion Victorious.
Norfolk Bowler's service fee is \$20.
All dogs eligible for registration.
W. J. LUMSDEN, - Hanlan, Man.

J. A. S. MACMILLAN,
Live Stock Agent and Importer, Brandon.

Having a large connection amongst many of the foremost breeders in Great Britain, I guarantee to supply pure-bred Horses, Cattle, Sheep and Pigs of any British breeds for exhibition or breeding purposes on the most favorable terms. Satisfaction guaranteed. Prices on application. P.O. Box 483.

R. McKenzie, HIGH BLUFF, MAN.
Has a choice lot of young
BERKSHIRE BOARS AND SOWS
fit for breeding, sired by Perfection and Prince, out of prize-winning dams. Call or write.

MELROSE STOCK FARM.
Scotch Shorthorns
Choice Clydesdales
FOR SALE—A number of choice young bulls; young heifers and cows in calf; and a few Clydes of both sexes.
GEO. RANKIN & SONS, - Hamiota, Man.

Live Stock
that is worth feeding
is worth feeding well.

Most scientific feeders, in order to get all there is in food, usually give the animals they are feeding a little spice to sharpen the appetite and aid their digestion.

Fleming's Stock Food

has been used with great success by many feeders.

You will thank us for inducing you to try it.

5 lbs. for 50c.

Fleming's Drug Store
BRANDON, MAN.

When writing advertisers, kindly mention The Nor-West Farmer.



As it is desired to make this column as interesting and valuable as possible to subscribers, advice is given in it free in answer to questions on veterinary matters. Enquiries must in all cases be accompanied by the name and address of the subscriber, but the name will not be published if so desired. Free answers are only given in our columns. Persons requiring answers sent them privately by mail must enclose a fee of \$1.50. All enquiries must be plainly written, and symptoms clearly but briefly set forth.

ANSWERS TO QUESTIONS.

Nervous Debility.

J.B. Swallow, Keyes, Man.: "In August my horse went wrong in his waterworks, urinating several times a day. He failed in flesh, but not in appetite. I changed his feed and turned him out during the day. The extreme urination ceased, but he has not gained in flesh and strength as I would like. At first he had to be helped up when he lay down, the weakness being in his hind quarters. He has not now to be helped, but gets up with some difficulty. I have given him sulphate of iron and pulverized gentian. The weakness still appears to be in his hind quarters. He is not dull and on one or two days, when on the plough with three others, did not lag at all."

Answer.—The horse appears to have had an attack of diabetes, from which he recovered, but as a sequel is now suffering from nervous debility. He should be well fed and may do light work, but should never be forced when he appears to be tired. The following nerve tonic should do him good: Fluid extract of nuxvomica, two ounces; tincture of capsicum, half an ounce; solution of perchloride of iron, eight ounces. Give a tablespoonful twice a day in a little water or sprinkled in the feed.

Use of the Term Colt.

O. P. Q., Moose Jaw, Assa.: "In order to decide an argument, would you state the correct use of the term 'colt'?" Some parties claim that the word indicates sex, and that a colt is a young male horse, the term not applying to fillies; others claim that fillies are colts. What we wish to get at is the strict use of the word. Kindly decide."

Answer.—Correctly speaking, a colt is the young male of the horse species, the female being known as a filly, but in America it has become the custom to speak of either sex indiscriminately as a colt, and occasionally one comes across such hybrid words as horse-colt, mare-colt.

Effect of Laminitis.

Subscriber, Plumus, Man.: "Have a horse whose feet got tender during cutting, at first only front feet. Let him stand idle in stable two weeks, then turned him out in pasture. When he walks now he gathers his hind feet up under him with a jerky motion. Can find nothing wrong with hind feet, but front feet when pared show partly raw and putrid matter oozes out. Some one suggests thrush. Do the symptoms point to that?"

Answer.—Your horse has had an attack of laminitis, or, in other words, has been foundered, and as a result the soles of his front feet have become separated from the flesh and matter has formed in the space between. It will require very careful treatment to get him into working condition, and perhaps his feet are already so badly damaged that he will never be any good again. In treating him the first indication is to dry up the matter in his feet and to get the hoof to start growing again. All the loose sole should be pared away until the cavity the matter is running from is fully exposed, then place him in a foot bath of bluestone solution, half a pound to three gallons of water. Let him stand in this for half an hour, then step him out on clean straw and dress his feet as follows:—Pick a foot up and sprinkle the raw exposed flesh with iodine, then place a large thick wad of oakum over it, and keep it in place by tying a piece of sacking over the whole foot. Dress the other the same way and let him stand on a thick bed of clean straw to encourage him to lie down as much as possible. Give him a foot bath and dress his feet twice a day. As soon as the discharge stops and the wound is healing over, you should have him shod with flat bar shoes well dished out, a little oakum next the foot and then a leather sole. If his feet are not too badly diseased this treatment will restore him to usefulness, but he will always be tender footed and should be kept off the road.

Strangles.

Subscriber, Redpath, Assa.: "A colt four months old has been attacked at nights for the past two weeks, has also been kept in through the day when the snow was on the ground. I was feeding oat sheaves and hay to the mare. The colt was doing well till Monday morning, when I noticed him rather dull. At noon I noticed two small lumps in his throat. I rubbed throat with

Gonhault's caustic balsam, but not enough to blister. At night I dressed with electric oil, rubbing well in and put a tablespoonful on his tongue as far back as I could and held head up, and repeated next morning and noon, but still his throat swelled and he breathed short and heavy till Tuesday night, when he died. Had no violent pains and did not bloat. Was it distemper, and what treatment should I have given, as there was no veterinarian near?"

Answer.—English horsemen have well named this malady "strangles," for that is what it does to many of its victims. In America it is commonly called distemper. It is a disease of young horses, seldom attacking adults. The usual symptoms in addition to those common to all febrile conditions, are difficulty in breathing, swelling in the space beneath the tongue or in the throat and inability to swallow. In the course of the disease the swelling rapidly increases and is hot and painful. Then it softens in the centre, bursts or is lanced and a quantity of thick creamy matter runs out. This is usually the turning point and the patient begins to improve from the time of the opening of the abscess. Sometimes, however, the abscess is slow in forming, or the gathering takes place where the matter is far from the surface and cannot get exit. Such cases are very dangerous, for if the swelling is in the region of the throat, the breathing is greatly interfered with and suffocation may result. Such appears to have been the case with the colt described above. The swelling cut off his air supply and he died.

In treating ordinary cases of distemper, nature should be assisted to throw off the infection in the usual way, viz., the formation of an abscess. The swelling should be poulticed with hot linseed poultices frequently renewed. As soon as the abscess bursts, the poulticing may be stopped, and the parts bathed with hot water twice a day. In severe cases where there is danger of suffocation, the above measures must be assisted by the operation of tracheotomy. This is making an opening into the windpipe and inserting a breathing tube, which provides an artificial opening through which the patient can breathe until the swelling has time to subside. The operation is without danger, but requires skill and special instruments. The patient throughout the illness should be well cared for and tempted to eat boiled feed, bran mash, etc., and to drink oatmeal gruel or hay tea.

Indigestion.

R. W. C., Katepwe, Assa.: "Horse, eight years old, had pink eye last June, was slow in getting over it and has not picked up in flesh since. Fed cured green oats and chop till August, now fed cut oat sheaves; is turned out to grass and has been idle since cutting was finished; is now getting thinner, coat rough and skin tight. Please state trouble and cure."

Answer.—Prepare the horse for physic by feeding him for twelve hours by feeding without hay, then give a ball composed of Barbadoes aloes, one ounce; ginger, one drachm; soft soap, a sufficient quantity. If you do not understand giving a ball the aloes and ginger may be well shaken up in hot water and given as a drench. After he has had the physic continue soft feed until it operates, then put him on his usual feed and give him three times a day a tablespoonful of the following:—Exsiccated sulphate of iron, four ounces; powdered sulphate of soda, one pound; common salt, one pound; bicarbonate of soda, two ounces. Mix. He will take this in his feed unless very "pernickety," when it would have to be put on his tongue with a spoon. Keep him well groomed and let him run out every fine day if he is not working.

Probably Pneumonia.

M. D., Red Deer, Alta.: "Horse died last winter, opened him and found the lungs badly discolored and the sack in which the heart is enclosed was full of yellowish fluid which smelled bad. Horse was sick for two weeks. First noticed him go off his feed, but did not think there was anything serious till he commenced to swell in the stomach and legs. He would not lie down till the last day. He would stand with his nose against the wall all day; would eat very little. There was no V.S. here then. Colt took sick this summer same way. Saw a V.S. He gave me some powders to give him, but the colt died. What was the matter? What should I do if any more take it?"

Answer.—The horse appears to have died of pneumonia, a form of inflammation of the lungs. The sac of the heart was inflamed also from its proximity to the lungs, and the fluid resulted from it. In treating pneumonia, good nursing is half the battle. Get the patient into good surroundings as soon as possible—a large loose box is the proper place, and see that he gets plenty of pure air, but no drafts. If a loose box is not available, put him in a large stall and keep other horses away from him, not only to prevent infection, but to hinder them from spoiling the air for him. Foul air is poison to pneumonia, and the stable had better be cold than close and stuffy. Clothe the horse according to the season, offer him tempting food to eat, and water frequently. Cold water will not hurt him if he does not drink too much at one time. Let the pail stand in his manger and he can take a sip when he wants it. As to medical treatment, the less he gets the better, unless you know what you are about. In the earliest stages, apply a mustard blister to both sides. Mix the mustard with cold water to the thickness of cream and rub in for five minutes. Ten drops of aconite may be

given every four hours, and a teaspoonful of saltpetre each night and morning, but beyond this each case had better be treated on its merits by a professional man.

Discharge From the Womb.

T. C., Okotoks, Alta.: "Range mare had dead foal taken from her last spring. Since then there has been a bloody discharge, gradually decreasing in quantity. She seems to have no control over its ejection. Otherwise the mare is doing well, is in good condition. Should she recover, could she be bred again?"

Answer.—Give the mare a tablespoonful of fluid extract of ergot once a day. She will probably take it in her feed. The womb should be washed out with an antiseptic, such as creolin one part, warm water two hundred parts, about one gallon for each injection. To do this easily requires the use of an injection pump, the nozzle of which is carried by the well oiled hand to the mouth of the womb and the stream from it directed in various directions until the organ is thoroughly cleansed. The injections should be given three times a week until the mare is cured. The trouble is probably an ulceration in the womb, resulting from the presence of a dead foetus last spring. The ulcer appears to be in process of healing, as the lessening discharge indicates, but treatment will hasten recovery. She should not be bred before next spring.

Spasm of the Diaphragm.

Subscriber, Wetaskiwin, Alta.: "Kindly advise and prescribe for a case such as the following:—Mare, seven years old, weight about 1,200 lbs., always surous and heavy and in good condition. Expect she was two months advanced in foal; had been fed shear oats for three weeks (after going without grain for about a fortnight), and the last three nights before taking sick she had a shear of green oats extra, she was a hearty eater. Friday noon (Sept. 20) did not eat much; worked all right that afternoon on binder, at night would not taste, nor did she eat again, but drank regularly to the last. Saturday a.m. with every heart-beat was a loud thumping, accompanied by an upward jerk of the neck; respiration seemed governed by this thumping, otherwise natural, but throughout sickness there was little passage of water. That day gave her muscad and croton oil twice without effect; next morning a tonic from druggist, also a mixture of gum, eggs and milk, in the evening bled her some in mouth and gave bitter acres with success. Monday a.m. thumping not so loud, but as bad as ever by night. Gave three doses that day of a stimulant from druggist, also dose of alcohol in eggs and milk again, but next morning she died and on opening her 24 hours later found stomach filled to utmost capacity with water, no sign of undigested food, and heart swelled to size of a common tea-kettle."

Answer.—Spasm of the diaphragm is a sudden contraction of the great muscular partition, the "midriff" separating the chest contents from the abdomen. The normal function of this organ is to slowly contract, thus increasing the size of the chest and inflating the lungs, the process taking place rhythmically with every respiration. Sometimes through some derangement of the nerves which govern this movement, the contraction takes place so suddenly as to become a jerk, and a loud thumping sound is heard, with a simultaneous movement of the flank. This condition has frequently been observed in horses and is known to horsemen as "the thumps." In human beings the same affection gives rise to hiccough, but is seldom more than of a few minutes' duration. In horses, however, it is more serious, continuing in some cases for days, generally terminating in recovery, but sometimes, as in this case, ending in death. The cause of the affection is obscure, but it has been observed to follow over eating, over drinking of cold water, and sometimes accompanies disease of the heart. In treating the disease one must be guided by the necessities of the case in hand. Usually a dose of opening medicine is given, followed by a nerve sedative such as bromide of potassium, or chloral hydrate. A mustard blister applied to the pit of the stomach is often useful in restoring the normal function.

Bony Tumors.

J. K., McCreary, Man.: "Kindly advise me what to do for a 12-year-old mare:—1. She has a hard lump on the bone over the eye just where the jaw bones work together. It seemed to start over the other eye and the mare went blind, but that was some years ago. The lump, now, is as big as a small cup, but when she eats it seems to work and move, it seems to hurt her to eat and she is losing flesh. 2. The same mare has a lump behind the ear about two inches from the ear and when she eats it seems to move in and out. 3. The same mare when she eats, her teeth crack and snap and she slobbers a lot, had her teeth filed a week ago. 4. Same mare, after she is through drinking, will catch a rail and bite it two or three times. Kindly let me know through the only farm paper, The Nor-West Farmer, what is wrong with her in each case and what I can do for her."

Answer.—1. The hard swelling over the eye is probably an instance of a rare bone disease, in which a bony tumour forms, in this region. The swelling can be removed by operation. Sometimes the bony growth when examined after removal is found to resemble a molar tooth, and it is supposed, in explanation of the phenomenon, that the ab-

normal tooth is one that has accidentally become displaced during the early life of the foetus, and developed in the situation where it is found.

2. The lump behind the ear is of a different nature and very likely was caused by striking the head against a low doorway or ceiling.

3. Something is wrong with the teeth or mouth to cause the slobbering to continue after filing the teeth. Possibly a sharp cornered tooth has been overlooked, or the incisors may need shortening.

4. This indicates pain in the teeth, the effect of cold water upon them. Perhaps a tooth is cracked or ulcerated at the root. Have your V.S. make a careful examination.

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You can use it with certainty of prompt results. It doesn't fail once in 300 cases, and when it does you get your money back. Price \$2, or three bottles for \$5. One bottle cures one to three cases. At druggists or sent by mail.

Gowanstown, Ont., May 19th, 1899.

Dear Sirs.—We are very glad to say that Fleming's Lump Jaw Cure is worth having on a farm, and I think every farmer should keep it on hand. One of our cows had the Lump Jaw, and it was only seven days from the time we put it on until the lump was gone. It's the best in Canada today. Yours truly, HOWARD COATES.

Valuable but free. You will appreciate the information given in our new illustrated pamphlet. Free to readers of this paper. Write for it to-day.

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As it is desired to make this column as interesting and valuable as possible to subscribers, advice is given in it free in answer to questions on legal matters. Enquiries must in all cases be accompanied by the name and address of the subscriber, but the name will not be published if so desired. Free answers are only given in our columns. Persons requiring answers sent them privately by mail must enclose a fee of \$1.50. All enquiries must be plainly written, and facts stated clearly but briefly set forth.

ANSWERS TO QUESTIONS.

Hiring.

A Laborer, Portage la Prairie, Man.: "I hire with a farmer in harvest time by the day and agree to stay until threshing is done. A lot of wet weather comes on and he gives me no work. Can I quit work and draw my wages, or will I have to stay until threshing is done?"

Answer.—You will have to keep to your contract, viz., stay until threshing is done.

Subscriber, Carroll: "I hired a man for three months for so much. The man put in two months and then left me to go threshing. Can he collect his money?"

Answer.—His contract was not completed until the expiration of the three months, and he is not entitled to be paid, unless he had some good ground for leaving you as he did.

Hiring and Set Off.

Enquirer, Manitou, Man.: "I hire B for seven months at a certain price per month.



COMPETITORS AT HAMIOTA PLOWING MATCH, HELD ON P. KERR'S FARM, 1901.

Old Trail.

Subscriber, Shoal Lake, Man.: "I purchased a quarter section one mile from where I live. This summer I fenced it to save my hay. There was a road through the centre of it. The trail has been travelled about 10 years. It is not a road reserved by government or by private contract. A few of the neighbors asked me to put gates on the fence that they might use the trail this summer, which I did, on condition that they would close the gates after them. They kept leaving the gates open and I then fastened them securely. They have cut the wire every time. I have broken 40 acres and intend cropping it next year. What can I do to stop this trespass?"

Answer.—This may be a matter of title, and we would have to know upon what terms you purchased the property and its description and reservations (if any) before we could venture an opinion.

Official Administrator.

Subscriber, Deloraine, Man.: "Who is the official administrator of the Province of Manitoba?"

him he said it was yearly, but the interest was nine per cent, and that he told me of the change when I signed the mortgage. I can swear he never mentioned anything of the kind to me. He acknowledges that the application was for eight per cent. interest. Can I do anything to mend myself now?"

Answer.—You are bound by the terms of the mortgage which you signed.

Exemptions.

Subscriber: "What is the exemption law in this country? How many horses, cows, etc., and amount of grain can a farmer keep?"

Answer.—This question was answered on page 268 of the issue for May 6, 1901. We repeat it here: Except as otherwise by any Act provided, the following property is exempt from seizure by execution; 3 horses, mules or oxen, 6 cows, 10 sheep, 10 pigs, 50 fowls, and food for the same for 11 months, provided that the word "horses" shall include colts and fillies, the word "oxen" and "cows" shall include steers and calves and heifers respectively; provided also that the exemption as to horses over the age of four

Dangerous To Life.

Surgical Operations for Piles Dangerous and Unnecessary.

The failure of ointments, salves and pills to permanently cure piles has led many to believe the only cure to be a surgical operation.

But surgical operations are dangerous to life and moreover, are often unsuccessful and at this time are no longer used by the best physicians nor recommended by them.

The safest and surest way to cure any case of piles, whether itching, bleeding or protruding, is to use the Pyramid Pile Cure, composed of vegetable oils and acids, healing and soothing to the inflamed parts, and containing no opium or other narcotic.

Dr. Williams, a prominent official surgeon, says: "It is the duty of every surgeon to avoid an operation if possible to cure in any other way, and after many trials with the Pyramid Pile Cure I unhesitatingly recommend it in preference to an operation."

"The harmless acids and oils contained in it cause the blood vessels to contract to a natural condition and the tumors are absorbed and the cure is made without pain, inconvenience or detention from business."

"In bleeding and itching piles the Pyramid is equally valuable."

In some cases a single package of the Pyramid has cured long standing cases; being in suppository form it is always ready for use, can be carried in the pocket when traveling; it is applied at night and does not interfere with the daily occupation.

The Pyramid Pile Cure is not only the safest and surest remedy for piles, but it is the best known and most popular from Maine to California. Every physician and druggist knows it and what it will do.

The Pyramid Pile Cure can be found at all drug stores at 50c. for full sized treatment.

A little book on cause and cure of piles mailed free by addressing the Pyramid Drug Co., Marshall, Mich.

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BUILDINGS ON THE FARM OF FULTON BROS., NEAR PORTAGE LA PRAIRIE, MANITOBA.

After I hire B he gives C a note for so much. B asked me to sign note. Note is not due till B's time is out with me. Can he collect his full amount of wages, or can I deduct amount of note? Can C collect amount of note from me, as B is not of age and has gone away? 2. If a man hired for \$22 a month for seven months and quits at the end of six months, can he collect six months' pay, or has he got to give notice that he intends to quit?"

Answer.—1. You can pay the amount of note when due and set off against B's wages. You are liable to C on the note.

2. The wages are not wholly earned until the work for the whole time has been performed. Notice to quit is of no avail, unless you assent to it and pay for the time actually served.

Steer Killed by Railway.

Subscriber, Plumas, Man.: "I enclose particulars about steer killed on railway. It was killed on the 22nd of June on Sec. 36, Tp. 17, R. 13 west. There is no herd law between sunrise and sunset in that township and municipality, and no herd law in Tp. 18 of same municipality. The steer was a mile and a half from home when killed. Time when struck by train about four o'clock in the afternoon. It was skinned, cut up and hind quarters taken away before seven o'clock, p.m. A claim of \$25 was put in to the company, but they replied that they were not legally liable for damages, and offered \$10, which was refused. Since then they have been written twice, but have not answered the letters."

Answer.—Before the railway can be held strictly liable, you would have to show that they did not exercise due and proper care in the management of their train, or in other words, your evidence must disclose such negligence on the part of the railway company as would entitle you to recover. You had better consult a lawyer, or better still, effect a compromise with the company, if possible.

Answer.—The National Trust Company, but the Judges of the Surrogate Courts have, in their discretion, the power to appoint whom they desire, upon giving the necessary security.

Interest on Mortgage.

Enquirer, Sintaluta, Assa.: "Last winter I applied to an agent of a loan company for a loan on my land at 8 per cent. per annum. He said nine was the usual, but thought he could get it at eight. I said I would not have it if for more than eight, interest payable yearly. Some time later he told me it went through all right, but there were no funds at that time, so it was March before I got the money. I do not remember that I looked over the mortgage when I signed it. Now the company sends me a letter that the interest is payable quarterly and at nine per cent. I showed this to the agent. He said he would look it up, so the next time I saw

years shall apply only in case they are used by the debtor to earn his living.

Tools, agricultural implements and necessities to the value of \$500; 160 acres or less, the home of the debtor, or which he cultivates, in whole or in part; the house, stable, barns and fences, all necessary seeds or roots necessary for 80 acres. No article exempt where the purchase price of the said article is the subject of the judgment.

It is easy enough to be pleasant

When life flows by like a song;
But the man worth while is one who will smile

When everything goes wrong.
For the test of the heart is trouble,
And it always comes with the years,
And the smile that is worth the praises of earth

Is the smile that shines through tears.



HOME OF TULLY ELDER, ROUNTHWAITE, MAN.

Population and Production.

Sir Wilfrid Laurier put the population question in its most sensible and favorable light in his speech at the opening of the Toronto Exhibition. If 75,000,000 Americans export and import \$2,125,000,000 per year, an average of \$29 per head, and 5,400,000 export and import \$380,000,000 worth, or about \$70 per head, which is the better off? The Canadian is three times the man the American is, judged by worldly gear. It is the same old story. What difference does it make whether a man lives in a city of 40,000 or 400,000 or in a country of five millions or fifty millions, so long as he is comfortable, prosperous, protected in the enjoyment of his property by equitable laws and has all the advantages of a high civilization? Better be small in numbers and select in quality than gross numerically and no account otherwise. China is the largest nation on earth and the most of no account.

"Neither agriculture, manufactures, nor commerce, taken separately, is the cause of wealth; it flows from the three combined, and cannot exist without each. The wealth of any single nation or an individual, it is true, may not immediately depend on the three, but such wealth always presupposes their existence. Without commerce industry would have no stimulus; without manufactures, it would be without the means of production; and without the means of agriculture neither of the others can subsist. When separated entirely and permanently, they perish."—J. C. Calhoun.

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AND WORKS OFF THE COLD.

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The Farm Dairy.

By Miss Bella Morrison, Meadowvale,
Manitoba.

[Editorial Note.—The following essay was awarded first prize at the St. Andrew's Agricultural Society's show this fall for the best essay by a farmer's son or daughter under 18 years of age. Miss Morrison is only 14.]

KEEP GOOD COWS.

In the first place we should have good cows; they should be well cared for and treated kindly. They should be brushed sometimes. We should never put the dog after them or frighten them. Although being kind may not improve the quality of the butter, it will certainly increase the quantity. Always see that the cows are healthy and that they are fed on good strengthening food. Give them salt regularly. Some people feed turnips, and think it does not interfere with the butter. Well, that is all right if you feed them as soon as they are milked, for if fed any other time the milk will taste of turnips. Never give the cows any decaying vegetables, or any musty grain. Plenty of clean water, good hay, mangels or bran in winter will make the cows milk well and give good butter.

MILKING, STRAINING AND SETTING.

The milkers should wash their hands clean and brush the cows' udders well before commencing to milk. Strain through a wire strainer first, and then through three folds of book muslin or cheese cloth. We set the milk in creamers or cans, which are fastened inside of a box. In hot weather we change the water three times a day and in cooler or cold weather once a day. If you want to make good butter, your milk pails, strainers, cream crocks and churn must be kept perfectly clean. This is very important. A little carelessness in this matter will spoil the flavor of your butter.

RIPENING OF THE CREAM.

When we take off the cream we keep it cold until we have enough for a churning. We then stir it well and add one pint of good pure buttermilk to every three gallons of cream. The ripening of the cream is a very important matter, both for quality and quantity. If it is not properly ripened it will not be developed, and it will be of a weaker body and lack in quality. If the cream be over-ripe the acid will be too far advanced, and the fine sweet aroma in flavor will be killed and the quality will be poor.

CHURNING.

Scald and clean the churn properly; put in the cream. Churn steady but not too fast; 35 to 45 minutes should bring the butter. At this stage add one quart of pure water to the churn; it firms the butter and helps to separate it from the milk. Now the best way of getting it out of the churn. A good deal depends on what kind of a churn is used (we like the barrel churn best). If this churn is used perhaps the readiest way is to draw off the buttermilk and run it through a cotton cloth, so that no butter escapes in the milk. Give the churn a few turns, then take out the butter into the butter worker, whatever that may be. Too much working spoils the grain of the butter and makes it greasy, too little does not take out all the buttermilk, and it will not keep, so that a little judgment and skill is required here to do it right. Whether the butter be in a bowl, on a plate or on a board, do not spread it, bruise it, or squeeze it. If in a wooden bowl, press it with a wooden ladle and turn it over, so as to get all the buttermilk out of it. When all the milk has been pressed out of it, wash it with clean

water with a little salt in it. If the butter is for our own use, we salt it to please our own taste. Distribute the salt as evenly as possible through the butter, and work well, for if you don't your butter will be streaky. If you intend to keep the butter until you can get a higher price for it, pack it down good in a tub or crock. Then spread a clean white piece of cotton over it, cover with salt, and put away in a cool dairy or cellar.

MARKETING.

When selling your butter be sure and have it spotlessly clean. Cover the basket, or whatever it may be in, with nice white towels or napkins.

CLEANING UP.

Now the butter is all ready for market, but your work is not all finished yet. Wash your butter worker, cream crock, etc. Empty your buttermilk and wash the churn well in two or three waters. Put away all the things clean in their right places, so they will be ready when you wish to use them again. Good pure butter should be found on every farmer's table, but I am sorry to say it is sometimes lacking in flavor. Remember, the town or city people look at you, as well as at your butter, and the clean, neatly-attired woman will often sell her butter at once, while her neighbor who is not so particular about her personal appearance (though her butter may be clean) has to stand in the market nearly all day before she sells it. Now you will have the satisfaction of knowing that you are offering for sale a good, honest article, and after a customer buys from you, you will not be ashamed to look him or her in the face when you see them again.

Origin of Butter Flavors.

From Professor Wing's "Milk and Its Products":—

There is some doubt as to the origin of the characteristic flavors which are developed in the cream during the ripening process. These flavors are undoubtedly due to the presence of certain volatile substances—fats, bacterial products, or ether-like compounds—which are formed during the ripening process. It was formerly supposed that the production of the characteristic flavors was almost wholly a process of oxidation, and that cream, in order to be properly ripened, and to develop the best flavors, must be supplied with an abundance of oxygen in pure air during the process. Our knowledge of the presence of germs in milk and cream and of the effect of their growth upon the various constituents of the milk, has led us to modify these views. At the present time it seems probable that the growth of germs which produce lactic acid has much to do with the production of the characteristic flavors of ripened cream. It has been asserted by some, notably Conn, that the production of the flavors is due to the growth of specific flavor-producing germs that are largely independent of the formation of lactic acid, but this view does not seem to explain all of the phenomena of the appearance of such flavors, and it is by no means certain that the flavors are not in part produced as the result of direct oxidation. It is found in practice that the regulation of the production of lactic acid is the chief means in controlling the flavor.

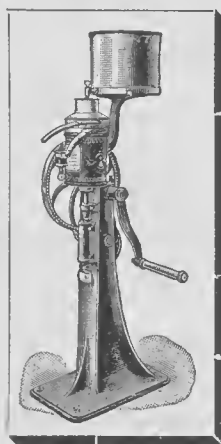
The buttermaker, who has at least a half dozen cows, will provide himself with a cream separator if he desires to make the greatest possible profit from his dairy.

Messrs. Hopkins, of Moose Jaw, and McDougall, Saskatoon, have gone to British Columbia to take charge of the travelling dairy instituted by Professor Riddick.

The most conscientious attention to detail work in the care of cows, care of milk, and the routine of labor, required in butter and cheese making, is necessary to success in any or all of these branches.

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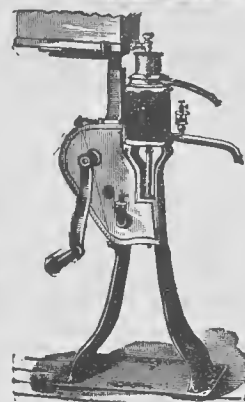
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Exposition, Toronto, Ont., 1901.

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Canadian Cheese Again Ahead.

Another list of later-made cheese at the Pan-American has resulted in victory for the Canadians. Canada sent 57 exhibits, and of these 16 scored 97 points and over. The highest score was 98 points, and that was made by two makers. The same number of makers scored 97½ points and another two 97½ points. Eight made 97½ and two 97.

Wisconsin sent 22 samples of export cheese, the highest score of which was 96½. Another made 96½ and two 96. In her 71 exhibits of cheese made for home consumption better scores were made. One reached 98 points, four made 97½, and six a score of 97 points. New York State only showed four samples of export cheese, all of which scored well, the highest being 98. She had a larger exhibit for home consumption, and in this three lots scored 98 points, one of them being made at the Cornell experiment station.

In creamery butter Minnesota made the biggest entry and secured a lot of good scores. The highest score was 97. Canada made ten entries, the highest score of which was 95½, awarded to the Guelph dairy school. A. Wenger, Ayrton, Ont., well known as a champion buttermaker, secured two scores of 95½. The highest score made by Wisconsin butter was 95½ points. New York State made a smaller entry than Minnesota, but scored well, having one of 97, one at 96½ and several at 96½. Her lowest score was 94, while Minnesota ran down to 92, which was also the lowest score in the Canadian exhibits. Quite a number of states sent small exhibits but none of them scored up to Minnesota and New York. Considerable fancy butter was on exhibit, but in no case were the scores high.

How to Sell in England.

In a recent interview, Professor Robertson gave his views on the way that Canadian produce of all sorts should be sold in England. From every point of view the selling on consignment is bad. It is practically a notice in advance that the stuff is not of a quality that good houses can handle. He gives the shippers this hint, which has a great deal of meaning in it: "Always deliver goods as you represent them to be." "And never deliver them in poor condition." On these two points permanent success must always depend. In illustration of his meaning he says:

"We are sending nearly \$20,000,000 worth of cheese to Great Britain, and not two boxes to 100 are sent on consignment. The rest is practically the property of the party to whom it is sent in England before it leaves this side of the Atlantic. And that is the proper system; that is the system which should be adopted in the apple trade as well. The party to whom the goods are sent will then take much better care of the products than he otherwise would. A case in point: A lot of butter was sent on consignment to Glasgow during the time I was there. This, after having been carried to Glasgow under a system of cold storage provided for by the Dominion Government at a considerable expense, was left exposed for 48 hours during the hottest weather on the dock

at Glasgow. Other like goods, sent at the same time, but not on consignment—goods which had been sold before leaving this country—were hurried at once into cold storage."

"Here is a warning example. The party to whom the goods were consigned knew the butter had arrived, because he had taken samples from it for the purpose of making sales. Why did he leave it exposed? Because he was not obliged to take up his draft in payment for the butter before delivery was accepted. If he could sell it by sample, before actually accepting delivery, he would, possibly, save the use of two or three thousand pounds in the bank for two or three days. It is because of things like this I am going to start a campaign in this country against sending goods to England on consignment."

The Morris creamery will run all winter.

Hartney is talking of starting a creamery next season.

Most of the creameries are just winding up their season's work. A number have already closed.

Superintendent Murray is making preparations for the opening of the dairy school early in the new year. Particulars regarding the course will be issued in bulletin form early in November.

The foundations of the new creamery at Glenboro are about finished and the frame work will be pushed along so that ice can be put in this winter and everything got in readiness for an early start next spring.

Interest in the model dairy at the Pan-American exposition increases as the season draws to a close. Many practical lessons have been learned by dairymen from this prolonged record of the performances of the ten different herds of dairy cows. The fact should be borne in mind that these different herds have been under a constant strain ever since the first of May and that conditions have been unusual in a great many respects. The fact should be borne in mind also that several of the herds are not especially noted for dairy qualifications; that some of them, in fact, have been bred through successive generations for other purposes. To thoroughly appreciate the model dairy and the modern strides along the way of advancement, it is extremely interesting to note that twenty years ago we had but two breeds of cows that were bred especially for dairy purposes, the Ayrshires and the Jerseys. A walk through the model dairy and a study of the ten different breeds housed therein mark the advancement in this direction as nothing else could possibly do.

Highly Important Credit Auction Sale

On Wednesday, October 30, 1901, at 1 o'clock, p.m., sharp, at the farm of Mr. J. T. Thomas, 4½ miles northeast of Portage la Prairie, at which will be offered SEVERAL HEADS OF REGISTERED SHORTHORN & JERSEY COWS & YOUNG BULLS, also 1 Thoroughbred Trotting Mare (regd.), "Onalinda," 2 pure bred (regd.) Berkshire Brood Sows and 80 pure bred Barred Plymouth Rocks, together with a large quantity of other good Horses, Cattle, Implements, etc. Teams will meet trains at Portage la Prairie to convey intending purchasers to and from this sale.

H. G. ALTON, Auctioneer.

Auction Sale

ABERDEEN STOCK FARM

3 Miles West of Brandon

Monday, Nov. 4, 1901

44 Aberdeen Angus Cows and Heifers
25 Scotch Shorthorn Cows and Heifers
10 Scotch Shorthorn Bulls (ranging from 6 months to 3 years old)
7 Imp. Scotch Wolf or Stag Hounds
5 American Wolf or Stag Hounds

Every Animal and the Farm will be sold. Sale commencing at 10 a.m. Lunch on the grounds

R. D. EVANS,
Auctioneer.

A. B. FLEMING,
Proprietor.

Sharples "Tubular" Dairy Separators.

Greatest Step Ever Made In Advanced Cream Separator Construction.

If cost more, are worth double, for they produce enough more butter than the best competing separator to pay fully 6 per cent interest on whole first cost of machine.

We Absolutely Warrant It and Give Free Trial to Prove It.

Also very light running, a 600 lb. machine turning easier than other 300 lb machines. No disks to bother with and get out of order. No complications.

If you want to know about all different separators, send us for a copy of "The Separator," containing an expert opinion on them, together with Free Catalog No. 138.

Sharples Co., Chicago, Ill. P. M. Sharples, West Chester, Pa.

W. H. ZIEGLER, Virden, Manitoba, General Agent.

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Sold by all Leading Dealers.
Improved for 1901.

No.	Holds.	Churns.
0	6 gals.	½ to 3 gals.
1	10 gals.	1 to 5 gals.
2	15 gals.	2 to 7 gals.
3	20 gals.	3 to 9 gals.
4	26 gals.	4 to 12 gals.
5	30 gals.	6 to 14 gals.
6	40 gals.	8 to 20 gals.

PATENT FOOT AND LEVER DRIVE.
PATENTED STEEL ROLLER BEARINGS.
IMPROVED STEEL FRAME.

Superior in Workmanship & Finish.

DAVID MAXWELL & SONS,
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Salt in Butter

When you buy Salt for butter making you want Salt, not lime or other impurity. You want salt that dissolves quickly—Salt that will give a delicate flavor to the butter. You get all this in Windsor Salt.

Windsor Salt.

BEE MAN GRAIN CLEANERS ARE THE BEST.



Prices are reasonable. Write for Catalogue.

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One horse can operate it. Very easy for two. Send for circular.
NOT A COW NOR CHAIN ABOUT IT.
Simplest Press Made.
LOW BRIDGE
Lifting Jack goes with each Press. Powers—puts full weight into box car. Tracks with a wagon 2 horses draw it on common roads.
Has an AUTOMATIC PLUNGER DRAW.
DAVID BRADLEY MFG. CO., 127 E. Broadway, BRADLEY, ILL.
ALEX. C. McRAE, AGENT, WINNIPEG, MAN.

THE GREAT WEST SADDLERY CO., Limited.

Our horse collars fit perfectly and are guaranteed not to chafe. Our harness are all made from the backs of best selected leathers.

OUR SADDLES

Are world beaters. Our trunks and valises are of the latest and best designs.

All our raw material is bought at lowest cash prices and freight by carload. We own our own buildings. We have no rent to pay and we give the best value for your dollar.

Insist on purchasing our make of goods. For sale by all dealers in the harness line or send direct to 519 Main Street, Winnipeg.

THE GREAT WEST SADDLERY CO., Ltd.

LITTLE'S PATENT FLUID SHEEP DIP AND CATTLE WASH

The Original NON-POISONOUS FLUID DIP

Still the Favorite Dip, as proved by the testimony of our Minister of Agriculture and other large Breeders.

FOR SHEEP.

Kills Ticks, Maggots; cures Scabs, heals Old Sores Wounds, etc., and greatly increases and improves growth of Wool.

CATTLE, HORSES, PIGS, Etc.

Cleanses the skin from all insects and makes the coat beautifully soft and glossy. Prevents the attack of Warble Fly, heals Saddle Galls, Sore Shoulders, Ulcers, etc. Keeps animals free from Infection.

NO DANGER, SAFE, CHEAP and EFFECTIVE

Beware of Imitations.

Sold in large tins at 75c. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to Breeders, Ranchmen, and others requiring large quantities.

SOLD BY ALL DRUGGISTS.
SEND FOR PAMPHLET.

ROBT. WIGHTMAN, Druggist, Owen Sound.
Sole Agent for the Dominion.

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Full course of veterinary instruction in all its branches in three sessions. Lectures commence September 25th. Matriculation examination on 21st. For calendar and full information apply to

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Telephone 295.



Dressing Poultry for Market.

Year by year the farmers of the west are going to raise more and more poultry and eggs. But even if there is only a small amount to market at present it should be marketed in the very best way so that it will bring the most money possible. In last issue we pointed out the best way of killing poultry intended for market, but before the killing is done it is always well to starve the birds for 18 to 24 hours. Full crops insure the appearance of the birds and are liable to sour. If this occurs, lower prices will have to be accepted.

To Dress Chickens—Kill by bleeding in the mouth or opening the veins of the neck; hang by the feet until properly bled. Leave head and feet on and do not remove intestines nor crop. Scalded chickens sell best to home trade, and dry picked best to shippers, so that either manner of dressing will do if properly executed. For scalding chickens the water should be as near the boiling point as possible without boiling; pick the legs before scalding; hold by the head and legs and immerse and lift up and down three times; if the head is immersed it turns the color of the comb and gives the eyes a shrunken appearance, which leads buyers to think the fowl has been sick; the feathers and pin feathers should then be removed immediately very cleanly, and without breaking the skin; then "plump" by dipping ten seconds in water nearly or quite boiling hot, and then immediately into cold water; hang in a cool place until the animal heat is entirely out of the body. To dry pick chicken properly the work should be done while the chickens are bleeding; do not wait and let the bodies get cold. Dry picking is much more easily done while the bodies are warm. Be careful and do not break or tear the skin.

To Dress Turkeys—Observe the same instructions given for preparing chickens, but always dry pick. Dressed turkeys, when dry picked, always sell best and command better prices than scalded lots, as the appearance is brighter and more attractive. Endeavor to market all old and heavy gobblers before January 1, as after the holidays old toms are sold at a discount.

Ducks and Geese—Should be scalded at the same temperature of water as for other kinds of poultry, but it requires more time for the water to penetrate and loosen the feathers. Some parties advise, after scalding, to wrap them in a blanket for the purpose of steaming, but they must not be left in this condition long enough to cook the flesh. Do not undertake to dry pick geese and ducks just before killing for the purpose of saving the feathers, as it causes the skin to become very much inflamed, and is a great injury to the sale. Do not pick the feathers off the head; leave the feathers on for two or three inches on the neck. Do not singe the bodies for the purpose of removing any down or hair, as the heat from the flame will give them an oily and unsightly appearance. After they are picked clean they should be held in scalding water about ten seconds for the purpose of plumping, and then rinsed off in clean cold water. Fat, heavy stock is always preferred.

Shipping—Before packing and shipping, poultry should be thoroughly dry and cold, but not frozen; the animal heat should be entirely out of the body; pack in boxes or barrels; boxes holding 100 to 200 pounds are preferable, and pack snugly; straighten out the body and legs, so that they will not arrive very much bent and twisted out of shape; fill the packages as full as possible to prevent moving about on the way; barrels answer better for chickens

and ducks than for turkeys or geese; when convenient, avoid putting more than one kind in a package, mark kind and weight of each description on the package and mark shipping directions plainly on the cover.

Canker is a poultry disease that is caused by dampness. It is well to see that the surroundings of the poultry house are dry and clean.

The Ohio Farmer says that produce dealers estimate that the people of Chicago consume, in round numbers, 3,000 cases of eggs per day. As each case contains 30 dozen, that amounts to 1,080,000 eggs a day.

William Kitson, Burnside, Manitoba, writes: "My Mammoth Bronze turkeys this year are the best I have ever sent out. I have lots of young toms which at maturity will weigh from 38 to 45 and 48 lbs., and Mammoth Bronze turkey hens up to 25 lbs. each. Toulouse geese are simply grand. I have just weighed a June gosling which tipped the scales at 21 lbs.; others I judge at this age are just as heavy, though they are only four months' old birds. My Barred Plymouth Rock cockerels are very nice. Of course I want for these extra fine birds a fairly good price, and parties wanting such had better write quick."

The Dust Bath.

Before it gets to be too late be sure to lay up a good supply of dust, or failing that, very dry earth, for the chickens' dust bath during the winter. Fine, very fine dust, is nature's remedy for lice, and given the opportunity the hens will make good use of the bath all winter. Did you ever see the hens lying in a dry place, in the summer time, kicking up the dust until it penetrated between the feathers to every particle of the skin. Did you notice how they enjoyed their bath? Then give them the chance to enjoy themselves that way during the winter. Make a fair-sized boxed place to hold the dust in the floor where the sun will shine on it and see if the hens won't make use of it. The dust will have to be changed occasionally and a little insect powder sprinkled through it will help in keeping down vermin. The story is told of a very successful poultryman who one time had occasion to rent a portion of his poultry house to the tenant of his farm, who whitewashed and cleaned his house regularly, but was not so successful in keeping down vermin as the owner, who supplied his fowl with a good dust bath, frequently renewed with the addition of an insect powder. In all the hurry of harvest and threshing do not forget the dust bath for the hens.

The Influence of Food.

Feed has a considerable influence on the color of the flesh of fowls put up to fatten. A creamy white is the color of flesh most desired. Some like a yellow, but the former is the most demanded by the market. Skim milk and ground oats fed with a crammer for 10 or 12 days gives a beautiful creamy white color to the flesh of chickens. Besides its rapid fattening qualities this is one of the valuable features about the mixture of oatmeal and skim milk used for fattening chickens with the crammer. To produce a bright yellow flesh nothing has been found equal to yellow corn. Three weeks feeding on yellow corn will wonderfully improve the color of birds before show time.

Mr. Gilbert, poultry manager of the Experimental Farm, Ottawa, says that in an experiment he carried on in fattening poultry with an unlimited run and a limited one, those having the limited run made the best gains. Experiments at Guelph along the same lines gave the same results.

Its True Character.

Catarrh is Not a Local Disease.

Although physicians have known for years that catarrh was not a local disease but a constitutional or blood disorder, yet the mass of the people still continue to believe it is simply a local trouble and try to cure it with purely local remedies, like powders, snuffs, ointments and inhalers.

These local remedies, if they accomplish anything at all, simply give a very temporary relief and it is doubtful if a permanent cure of catarrh has ever been accomplished by local sprays, washes and inhalers. They may clear the mucous membrane from the excessive secretion, but it returns in a few hours as bad as ever, and the result can hardly be otherwise, because the blood is loaded with catarrhal poison and it requires no argument to convince anyone that local washes and sprays have absolutely no effect on the blood.

Dr. Ainsworth says, "I have long since discontinued the use of sprays and washes for catarrh of head and throat, because they simply relieve and do not cure."

For some time past I have used only one treatment for all forms of catarrh and the results have been uniformly good, the remedy I use and recommend is Stuart's Catarrh Tablets, a pleasant and harmless preparation sold by druggists at 50c., but my experience has proven one package of Stuart's Catarrh Tablets to be worth a dozen local treatments.

The tablets are composed of Hydrastin, Sanguinaria, Red Gum, Guaiacoli and other safe antiseptics and any catarrh sufferer can use them with full assurance that they contain no poisonous opiate and that they are the most reasonable and successful treatment for radical cure of catarrh at present known to the profession.

Stuart's Catarrh Tablets are large, pleasant tasting 20 grain lozenges, to be dissolved in the mouth and reach the delicate membranes of throat and trachea, and immediately relieve any irritation, while their final action on the blood removes the catarrhal poison from the whole system. All druggists sell them at 50c. for complete treatment.

CLEARING SALE

White and Barred Plymouth Rocks

As I am giving up raising poultry entirely, I offer for sale every bird on the place, both this year's breeders and young stock. None of my breeding hens over two years old.

Write quick if you want some good ones. Must all be sold by end of November. Prices right. Also a fine 4-year-old Peacock.

W. F. CROSBIE,
MANITOU, - MAN.

SELLING OUT.

B. P. Rocks, White S. C. Leghorns, Mottled Anconas, Light Brahmas, Black Minorcas, Golden and Ring Neck Pheasants.

PRICES RIGHT.
RELIABLE POULTRY YARDS, BRANDON, MAN.
(STAMP FOR REPLY.) W. H. CARSIQ, Box 299.

Plymouth Rock Cockerels

I have more than I want to carry over winter, will sell now at \$2.00 each, f.o.b. cars, Winnipeg. These birds would cost you double in the spring. They are early hatched, large, strong, well developed, with yellow legs and heads and standard markings. Here is what one of my customers says:—"White-wood, Sept. 9th, 1901. The Plymouth Rock Cock arrived all right. Am more than pleased with him and consider him worth double the money. I feel sure that customers dealing with you will renew orders with confidence. Thanking you for every satisfaction, I remain, yours truly, J. L. Lamont."

I have also a grand lot of Bronze Turkeys, Toulouse Geese and Pekin Ducks, winners at Winnipeg Industrial of 20 prizes, 2 medals and diploma. Catalog free.

MAW'S POULTRY FARM, WINNIPEG, MAN.

Northwest Agent for

CYPHOS INCUBATORS,

Bone Mills and General Poultry Supplies.

BARRED ROCKS.

This year better than ever. My stock won more prizes at Brandon this year than all other B.P. Rocks shown. I have a great many birds and can please you. A few Black Minorcas, Black Hamburgs, Silver Laced Wyandottes and S.C.B. Leghorns. Prices right.

THOS. H. CHAMBERS,
Brandon, Man.

DES MOINES INCUBATOR, The BEST and the CHEAPEST.

Illustrated Catalogue, 5c. per mail.
Poulter's Guide, new edition, 15c. per mail.
O. Rolland, 373 St. Paul St. Montreal.
Sole agent for Canada.

Louise Bridge Poultry Yards.

Headquarters for Barred Plymouth Rocks, Single and Rose Comb White Leghorns, White and Black Wyandottes, Black Spanish, and American Dominiques. Exhibition and Breeding Birds for sale.

A grand lot of Cockerels that will improve your stock for utility and in show room points. Order at once and get the cream of the flock.

Address
GEORGE WOOD,
Louise Bridge P.O., Winnipeg, Man.

OAK GROVE POULTRY YARDS

LOUISE BRIDGE P.O.
WINNIPEG, MAN.

Toulouse, Embden, White and Brown Chluese Geese.

Barred Rocks, Light Brahmas, B. Javas, S. L. Wyandottes, R. C. Brown Leghorns, Houdans, (five birds shown at Brandon, 1901, averaged 94% points) B. Minorcas, B.B.R. and S.D. Game Bantams

Geese Eggs, 35c each; Turkey Eggs, 25c each; other eggs, \$2 per setting of 18, \$3 for 26.

INCUBATORS—Sole agent for Man. and N.W.T. for Geo. Ertel & Co.'s Imp. Victor Incubators and Brooders. Mann's Bone Cutters, and Wire Poultry Netting. Write for circulars and catalogues.

CHAS. MIDWINTER, LOUISE BRIDGE P.O., WINNIPEG

NORWOOD BRIDGE POULTRY YARDS.

Headquarters for Thoroughbred Fowls in White Wyandottes, Pekin Ducks, Plymouth Rocks, M. Bronze Turkeys.

This year's breeding stock for sale cheap to make room for 300 growing chicks; young stock for sale from October 1st. Fancy pigeons always on sale. Address—J. WILDING, Norwood Bridge, Winnipeg.

SUCCESS POULTRY YARDS.

First Prize! First Prize!

That is what J. A. King's Barred Plymouth Rock Chicks of 1901 received at the Winnipeg Industrial. If you want a good pair for a fall show I can supply you at reasonable prices. Over 100 good young breeding birds for sale from \$1.50 up.

J. A. KING, Prop., 94 Gertie St., Winnipeg.

MOUNT PLEASANT POULTRY YARDS

We are taking orders for young birds for fall delivery in our B. Minorcas, S. C. B. Leghorns, W. Wyandottes. Have also a few choice cockerels in B. P. Rocks. We will also have for service this coming season our registered and pedigreed hoar, "Chancellor," purchased from J. A. McGill, Neepawa, at the Winnipeg Industrial, after having been awarded the "red ticket." Animals sent in on train will be properly attended to and returned to train. Hoping that the farmers and others in this vicinity will take this advantage of improving their stock. Address

J. H. DAWSON, Mgr., 282 Ellice Ave., Wpg.

THE "HUB" POULTRY FARM KILDONAN.

We are now offering at special prices, for quick sale, the male birds of our breeding pens. Write for particulars. Rose Comb Black Orpingtons, Barred Plymouth Rocks, Black Minorcas, S. C. Brown Leghorns. The above birds are just what is wanted to improve your stock.

T. W. BRADY, Drawer 1270, Winnipeg P. O.

EGGS! EGGS! EGGS!

Only five days old. Will bring you fancy prices. Write for particulars.

R. DOLBEAR,
Commission Agent - 1238 Main st., Winnipeg.



Virden Duck Yards.

MAMMOTH PEKIN DUCKS.

Rankin's strain exclusively. I have a large number of good young birds for sale. Will book orders for delivery any time. Correspondence solicited. J. F. C. MENLOVE, Virden, Man.

New Goods

We are now receiving packages of new up-to-date goods daily. Our buyer has been through all the Eastern markets and we are now opening to view the result of his trip. Order early for Christmas and get the pick.

Andrews

WATCHMAKERS and JEWELLERS,
McIntyre Block, WINNIPEG.



While our columns are always open for the discussion of any relevant subject, we do not necessarily endorse the opinions of all contributors. Correspondents will kindly write on one side of the sheet only and in every case give their names—not necessarily for publication, but as a guarantee of good faith. All correspondence will be subject to revision.

Dog Power.

A Subscriber: "Where could I get a dog tread power, with governors? I want one as small as is made."

Answer.—Try the De Laval Cream Separator Co., 243 McDermot Ave., Winnipeg.

The Best Power for the Farm.

Rusticus, Glenboro, Man.: "There is quite a discussion in your paper as to which is the 'best' power for the farm. I think most of your readers will agree with me when I say there is no 'best power,' for what would suit one farm might not suit another. For instance, if a man wanted a power to cut straw for a few head of stock he wouldn't buy a steam engine to run his cutting box, unless he was slightly 'off his chump;' if another man wanted a power for pumping, he would likely prefer a windmill in preference to either a tread-power or gasoline engine. In your September 20th issue Mr. McDiarmid tells us how much a 3-horse tread power can thresh in a day, and wants to know how much a 3-horse steam engine could thresh in the same time. Now, there is about as much sense in comparing a 3-horse-power steam engine to a 3-horse tread power as there is in drawing comparisons between a man and a monkey. He also says the steam engine is far from being perfect, because there is a considerable waste of power in many ways. If Mr. McDiarmid was to try to run down a jack rabbit but failed because there was a 'considerable waste of power' somewhere, according to his own showing he would be 'far from being perfect.'"

Floor Space for Hens.

Subscriber, Adair, Assa.: "Is 12½ x 10 ft. a large enough pen for 50 hens?"

Answer.—The floor space allowed by successful breeders to hens in winter quarters runs from 4 to 10 square feet for each hen, according to the size of the hens and the amount of scratching they are to do in their pen. At the lowest estimate your pen would accommodate 30 hens, but you will find that 25 in such a pen will be as many as you can handle if they are not to be allowed outside of their pen, and even then you will have to be careful in their management to attain the fullest success. Where the hens have an outside run or access to another pen used as a scratching place, then you can safely crowd more in, especially if a roosting place is all that is wanted.

Secretary of Live Stock Associations.

Subscriber, Mountain View, Alta.: "I saw lately in your paper that the secretary of an eastern stock association is prepared to buy dairy cattle for farmers in the Territories who will furnish him with the cash and information as to the kind of stock he wants. Can you give me his address?"

Answer.—Write A. P. Westervelt, Parliament Buildings, Toronto, Ont.

Creamery Butter Competitions.

Respectable Finem, Moosomin, Assa.: "On reading the reports in The Nor-West Farmer and the awards given in connection with the above at the various agricultural shows held throughout the province, I think it would have been better, in order that the patrons should arrive at a correct value of these awards, that the different points of excellence (or otherwise) had been stated. The reports as they stand may be misleading to many, assuming, as they do, that the butter maker's ability alone is at test. Now, it is quite possible that the recipient of the lowest ticket displayed greater skill in the manufacture than the winner of the first, only had not the article to work upon. The writer, a short time before the Brandon exhibition, had occasion to travel westward from Winnipeg, and from the car noticed several herds of cattle grazing on green crops and what was apparently cultivated pasture, and it occurred to him that if the product from these cows was to enter into competition with that of the herds further west, fed only on prairie, there could be no difference of opinion on the result as to quality, the manufacture being the same. And that the creamery butter makers would be on an equal footing, would it not be well in future to state in detail the points given each exhibit for flavor, grain or texture, color, etc., in making the awards, and to stipulate as to feeding? This would appear absurd were it not possible that the cream for the competition might be got from one farmer and that one whose cattle was fed on green crop."

Answer.—We think our correspondent is placing too high a value on the superiority of green pasture over prairie grass. The

scale of points usually followed in judging butter and which is laid down to be followed at Winnipeg and Brandon, is as follows:—Flavor 45, grain 25, color 15, salting 10, finish 5, total 100. Now, of these, the grain, color, salting and finish are entirely under the control of the butter maker. The standard of color is "June Grass Butter" at both Winnipeg and Brandon, and if the cream a butter maker is handling won't make that naturally, he has only to add color enough to do so. The remaining point, the flavor, which carries the highest value, is also very largely in the hands of the butter maker. If the patrons take proper care of the cream the effects of any difference in pasture will be very small in the final result after the cream is ripened and handled by the maker. The question of limiting the pasture of the cows supplying the cream used in such a competition is out of the field of practical work. As to a creamery butter maker getting all his cream for such a competition from one patron, this also is rather beyond the ability of most patrons, as to fill two tubs or boxes over 100 lbs. of butter is required. If the maker is ambitious and enters for prints and assorted packages, as well as tubs or boxes, another 100 lbs. of butter will be needed. The patrons who can supply this amount at one gathering are few and far between. It could be done by holding the cream for a longer period than usual, but this would always be at the risk of depreciation of flavor through holding the cream too long.

Beginning in the New West.

A reader in Ontario who was brought up in the country, but has gone into city work to make a little money to carry out his project, sends us the following query. "Is there, in your judgment, sufficient encouragement for a young man of limited means to go into mixed farming in Alberta, and in what way would you suggest that it be invested for best returns in five or ten years? I am unmarried."

Answer.—The young man that is prepared to do hard work in Ontario and practice self-denial enough to save money there has in him a good deal of the stuff that goes to make up a good western farmer. But this is not the best season of the year to think of starting unless he can get hold of some one who needs him to help on a dairy farm or something that has relation to the life he proposes afterwards to follow. He can hardly expect to hit what he wants himself without getting inside the district where he proposes to look for a location. There are several districts between Calgary and Edmonton where a capable man could at the proper season make a start in the search for what he wants. If he was familiar with the details of farm work before he went to town, he will find it much easier to make connection. It takes a good deal of time, along with a ready will and resourceful mind, to get into the way of working on a farm to good purpose. A five dollar a month man that needs much watching from a master that is worth \$25 is not a great acquisition on a far west farm, but previous acquaintance with the every day details of farming in Ontario is a splendid preparation for going west. Find out from some store-keeper in the town you drop off at or a respectable farmer near it, what are the chances there, and freeze on to the first likely job you hear of. Meantime keep your cash in the Dominion savings bank and let no one know it is there. Don't try to invest it before you have got a thorough acquaintance with the life of the land; if you and your money are safely fixed within two or even three years you will have done well, the profits must come later. One very important investment for a young man contemplating mixed farming is a wife of the right sort. To get tied to a mere doll, whose first thought is about a change of hat or dress, is a sure passport to failure. A true helpmeet will be worth more than the best homestead in Alberta.

A Witness Mound.

Geo. A. Harris, Alma, Assa.: "Occasionally we find here a witness mound with a circle dug around it, generally near a slough. How far should the regular mound be from this one, or is there any standard distance?"

Answer.—There is no fixed distance from the true point at which the witness mound must be placed. The reason for such mounds is this. The exact point for the post may be in a river, or lake, or on a naked rock. In that case the surveyor was, and is still, required to set up a "witness mound" an exact number of chains from the proper place and at that place in addition to the ordinary marking to put the special information in this form:—W.M....chains N. S. E. or W., as the case might be. These witness mounds are only put at the corners of sections, and are not found at the minor divisions. The post is always placed at the point on the base of the mound nearest the corner it is meant to indicate and should be placed exactly on the line. If the witness post has S. on it the actual corner is to be found as many chains north of the post as the witness post itself indicates. The trunk of an ordinary post is square, that of a witness mound is circular.

We may also note that when the survey is made in heavy timber, and no tree is found on the exact point where a corner post ought to be, the nearest tree is "blazed" and on it are put the same markings the real corner post should have shown, but with the words W.M. on it along with the other appropriate markings above specified.

"Could not do without The Nor-West Farmer."—O. Johnston, Elgin, Man., Sept. 12th, 1901.

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Crops for Alberta.

M. G., Carstairs, Alta.: "I have read with a good deal of interest your recent articles on fall wheat and clover growing in Alberta, and am glad you are catering to the needs of farmers in Alberta as well as in Manitoba. You say you would be pleased to have names of parties willing to experiment with clover. I cannot make any rash promises, but it has been my intention for some time past to try an acre each of timothy, brome grass and the four clovers you mention, on land broken last June and worked down this fall. It will make choice feed in any event, and if I sow next spring I will certainly be pleased to let you hear the results. I should be glad of a hint in your columns as to what nurse crop, if any, is best, and about what date to sow. I have 2½ acres of Dawson's Golden Chaff and 2½ of Kansas Turkey Red fall wheat sown on breaking and looking well, it was sown Aug. 17th. I had to wait for a drill or would have sown earlier. Spring wheat is grown here every year, but is really not fit for chicken feed. I have just cut 14 acres of American Banner oats, which some of my neighbors say are the best they ever saw and predict a yield of 80 or 100 bushels per acre and 50 lbs. per bushel. They stood well in spite of the annual snow storm (Sept. 4th), and I believe farming will be a greater success in this district in seasons like the last than further north, we can sow earlier and consequently reap earlier."

Editorial Note.—In a recent issue we noted the great difference between the Rainy River country and Manitoba with reference to clover growing. In Manitoba all the early comers who sowed clovers were badly disappointed, owing, as we think, to the rankness of the prairie soil. Wherever that was mixed with the subsoil and had snow as a partial protection, clover took hold and has stayed. The ditches along railroad grades are examples of what we mean. We expect that from a combination of favorable circumstances clover will yet do in Manitoba. Clover, mainly, we believe, owing to the nature of the subsoil, readily takes and keeps hold in the Rainy River country, on comparatively new soil, and may do the same in Alberta. It is worth while to give it a trial anyway. If it falls on newly broken soil in some places it may hold in others and so supply clearer practical light than we now have. A limited area, sown in, say, May, without nurse crop, may be best, but it can be tested both ways. Fall wheat we think a pretty safe card all over the Alberta farming area.

Book on Stationary Engineering

Subscriber, Glenboro, Man.: "Where can I get a book on Stationary Engineering, and what is the price of it?"

Answer.—Roper's Young Engineers' Own Book, price \$2.50, 363 pages, 106 illustrations,

contains an explanation of the principle and theories on which the steam engine as a prime mover is based; or Roper's Instructions and Suggestions for Engineers and Firemen, price \$2. Both these books can be had from this office.

A. Turner, Elkhorn, Man.: Answer.—The books recommended above, or those given on page 591 of last issue will be what you want.

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BOOK REVIEW.

Important to Farmers and Stock Owners.

By J. Hugo Reed, V.S., Guelph, Ont.

The World Publishing Company, of Guelph, Ont., is about to put upon the market a new work, "The New Cyclopaedia of Live Stock & Complete Stock Doctor." This is a work of over 1400 pages and 800 illustrations. It treats at length with the different classes of domesticated animals, viz.:—Horses, Cattle, Sheep, Swine, Poultry and Dogs, with a Chapter on Bees, the author of every article in the book being a man well qualified to write upon his special subject. It deals briefly but comprehensively with the anatomy of the above mentioned animals, furnishes cuts to illustrate points of the same, also to illustrate the desirable conformation, especially of the horse. It is replete with excellent illustrations of well known, high class, prize-winning individuals of all classes of stock. It deals at length with all animals in both health and disease and describes the causes, symptoms and treatment for diseases. A chapter is devoted to the examination of a horse as to soundness; others to the education of a horse, how to buy and sell, etc., etc. It deals with the origin and history of the different breeds of all classes, and characteristics and peculiarities of each breed, best methods of breeding, general care of stock, construction of stables, grooming feeding, watering, etc. A chapter is devoted especially to the American Trotter; one to the Bacon Hog; one to Horse Breeding, giving tables of the points of excellence in each class; one to Dairying and Dairy Buildings, and one to Poultry. As far as possible there is an absence of technicality, all being written in plain English. This work should be a valuable addition to the library of any person who breeds or owns stock.

A New Stock Book.

By Prof. G. E. Day, Ontario Agricultural College.

"The New Pictorial Cyclopaedia of Live Stock, and Complete Stock Doctor," is the title of a new book which has just been launched by The World Publishing Company, of Guelph, Ontario. This well known and enterprising firm has such a high reputation that the public will naturally look for something good, and a careful examination of the book in question confirms the belief that there will be no disappointment. The book is ambitious in its scope, and represents the efforts of both American and Canadian writers. It contains over 1400 pages and is profusely illustrated.

It would take too much space to review the book fully, but a general idea of its character may be obtained by merely giving the headings of the thirteen different parts into which the subject matter is divided.

Part 1 treats of "The Horse—History, Management and characteristics of the Various Breeds." This division contains many practical hints and directions on nearly all matters pertaining to the horse, including an excellent description, with illustrations, of the outward appearance of the horse as indicating value.

Part 2 deals with the diseases of the horse. It is very plainly written, by a veterinarian of high standing, and deals with nearly every disease that horse-flesh is heir to.

Part 3 is concerned with Cattle—"History, Management and Characteristics of the Various Breeds."

Part 4 takes up the diseases of cattle in a very full and clear manner.

Part 5 gives the history, breeds, etc., of swine, and Part 6 discusses the diseases of swine.

Parts 7 and 8 are devoted to the sheep, including breeds, breeding, management, diseases, etc.

Parts 9 and 10 have to do with poultry and their diseases, while 11 and 12 have dogs and bees for their respective subjects.

Part 13 contains a variety of subjects, and has been added to bring the book strictly up-to-date in those departments which needed strengthening. The American Trotter, the latest regarding hog cholera, the Canadian bacon trade and the judging of bacon hogs; horse breeding, dairying and dairy buildings; and the selection of breeding stock in poultry, all find a place in this important addition of the book.

If one were disposed to criticize, perhaps, a portion of the illustrations would present the best opening. The greater number are remarkably good, but there are a number of them old fashioned and antiquated, but there are more than enough good pictures to compensate for this defect. In all there are over 800 illustrations. A large number are used to illustrate symptoms and thus help in the diagnosis of diseases. There are many illustrations of animals of superior excellence covering the various classes, also illustrations of appliances, methods of feeding, etc., many dealing with Anatomy, and included among the illustrations are 11 full pages of drawings and diagrams prepared by the Dominion Government for Creameries and Cheese factories.

There is room in this country for a good stock book which will serve as a reliable book of reference for the farmer, and the book in question seems admirably adapted to this purpose. Taken altogether it is the best book of the kind which has come before my notice. Its scope is a wide one, and the ground, on the whole, appears to be extremely well covered. Many similar

books are prepared merely to sell; but this one seems to have for its primary object the furnishing of reliable information, and it should find a ready sale.
(Further particulars of this book can be found in our advertising columns.)

"Animal Breeding," by Thomas Shaw, Professor of Animal Husbandry in the State Agricultural College of Minnesota. Professor Shaw has been long and favorably known in Canada and the Western States of the Union as a teacher of Animal Husbandry and questions related thereto. As a skilled judge of live stock his services are in constant request, very much, as we believe, because his decisions are based on fundamental principles, of which he has always been a careful observer and skilful investigator. One advantage in particular he has even over the men who are prominent as successful practical breeders and stock judges. He is required, in virtue of his position, not only to know the points of excellence and defect in the animals that come under his notice, but to be prepared to explain the numerous influences, past and present that have combined to produce the qualities he sees in the beast before him. To successfully fill the position of a public teacher and reliable critic requires a combination of the results of mature study and wide reading, with keen and ready practical insight. It is not as a college oracle, but as a ripe thinker and successful student that Professor Shaw seeks recognition by the stock breeding world, and it is just for that very reason that he is so much trusted as a safe guide in the field over which he has worked so long and is still working as diligently as ever.

This, his latest and perhaps best, piece of literary work is divided into 30 chapters, which deal with every vital point in the science and practice of animal husbandry. Each chapter is methodically divided so as to cover all essential points of the particular topic on which it treats. We may give Chap. 3, "The law that like produces like," as a sample of his mode of treating his subject. The sub-heads run as follows: Fundamental laws:—1. The law that like begets like. 2. The law of variation. 3. The law or principle known as atavism not unvarying in their action. The first law defined. This law easily recognised. Illustrations in the human family. Uniformity in results. Benefits arising from this law. Benefits from want of uniformity in this law. Mixed breeding. Influences that affect the action of this law. Features of resemblance in the offspring. Transmission seldom equal in the parents. The above are the subdivisions of this chapter, which covers less than 11 pages of over 400 contained in the book and every page of every chapter is an example of successful condensation, combined with careful presentation of every essential point.

This is just one of the kind of books that every student of stock breeding should at once get hold of and make himself familiar with. It is not like too many books of the same class—a compilation. Every idea in it has gone through the crucible of the writer's own active brain and comes to the reader fresh from the mint. We can fearlessly recommend it and will be glad to learn that it is, wanted by scores of the rising stockmen of Western Canada. It can be had from this office for \$1.50.

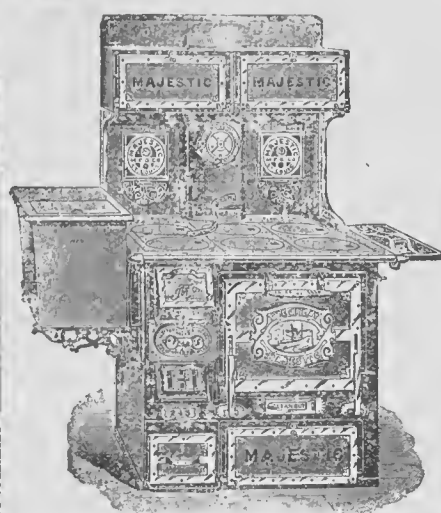
"Veterinary Elements," by A. G. Hopkins, B. Agr., D.V.M., price \$1.50. This little book marks a new departure in the way of veterinary literature, and to judge by the success it has achieved, being already in its second edition, it has filled a long felt want. The majority of veterinary books written for the farmer and stockmen have been too ambitious, aiming to enable the reader to treat successfully all the manifold ailments that flesh is heir to. This has led to the production of bulky volumes, bristling with lengthy and technical words, and unsuited to the requirements of the average non-professional horse owner, who needs something he can understand in the first place and make use of in the second. As stated in the preface, Dr. Hopkins' object is to "fit the stockman so that he shall be to the veterinarian what the trained nurse is to the physician," and, avoiding the pitfalls of his predecessors, the author has produced an admirably clear and readable volume containing practically all that a stockman should know on veterinary matters. The book is divided into two parts, the first giving a brief and yet lucid description of the construction of the animal body, the uses of its various parts or organs, and the best methods of giving medicines. The second part is devoted to diseases, their prevention and treatment, including the nursing of sick animals, the assistance of mares and cows in difficult parturition, care of the new born, how to perform simple farm operations, etc. The chapter on diseases due to mistakes in feeding is especially good and contains invaluable pointers for the horse and stock owner.

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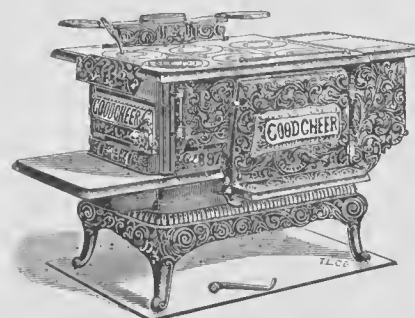
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Wholesale Representative for Manitoba and N.W.T.



Winnipeg, Oct. 19th, 1901.

Although the wet weather has continued so long and done so much damage, yet business in a wholesale way continues very active. The fact that not much over a quarter of the grain has been threshed at this late date and that much of it is still in stock, does not seem to have much effect on trade. Cautious country merchants are, however, holding off somewhat until continued fine weather makes the crop secure. In some districts of Manitoba considerable stacking is still to be done, though this week of fine weather will see a large amount done. In Alberta reports show a very backward season, threshing is only beginning. Hardware lines continue very active, with prices steady, though inclined to advance along certain lines. The lumber trade suffered owing to the wet weather, as building operations do not proceed as rapidly in wet weather. Collections generally are bad and money will not be free until considerable wheat has been moved. The delay caused by the wet weather will give the railways an opportunity to get away considerable of the wheat stored in the elevators, so that there will be more storage room for the newly threshed grain and stave off a little longer the threatened shortage of cars and storage room. Bank clearings continue to show a favorable rate of increase over previous years.

Wheat.

Within the last day or two there has been rather a livelier feeling and until navigation closes this may have a good effect on prices here, provided there is no change in outside markets. On the month there has been very little change, indeed, on Fort William quotations. This day month we quoted 1 hard at 69c. to 70c. On October 5th it had sagged to 67c. for 1 hard, and 64c. for 1 northern. Today it is 70c. to 70c. for 1 hard, 67c. for 1 northern, 63c. for 2 northern, 57c. for 3 northern. Tough 1 northern is 60c., tough 2 northern 57c. At Chicago contract wheat is 70c. to 71c. cash, 74c. for May. Duluth 68c. There were in store at Fort William on Oct. 12th, 1,789,500 bushels of wheat.

Commission men, as well as ourselves, have had many letters asking information about how to sell tough wheat. If it can be sold only by wagon loads, then a farmer must take the best he can get for it on his local markets. If tough or wet and he has a full car, he may send it on as instructed on page 589 of our issue of Sept. 20th, 1901. The car after inspection will have to go to King's elevator to be dried, after which he can sell it through his commission man. On another page of this issue Mr. King himself has done his best to explain how a farmer can dispose of it. A leading commission man called the other day to compliment The Farmer on the fullness and accuracy of the instructions on marketing, as given on page 589.

Regarding outside markets there is really nothing new to be said. The weather is now all that can be desired, but too many threshing gangs are working short handed. Where the straw was clean there is less damage done, but laid or weedy grain is making a very poor record.

Winnipeg inspections for week ending Oct. 7th were:—1 hard 564 cars, 1 northern 473, 2 northern 145, 3 northern 12, no grade 167, other grades 12. Total 1,373. Oats 18 cars, barley 3, flax none.

For the week ending Oct. 14:—1 hard 364, 1 northern 407, 2 northern 237, 3 northern 48, no grade 241, other grades 20. Total 1,317 cars. Oats 56, barley 11, flax 4.

Oats.

Are still a short supply, but more are looked for shortly. Prices the same as at our last report, 31c. to 33c. at Winnipeg.

Barley.

None offering. Prices 35c. to 40c. at Winnipeg.

Corn.

Cash corn at Chicago 56c. to 56c., May 55c.

Flour.

Prices unchanged. Best \$2, seconds \$1.85, XXX \$1.15. Rolled oats, home made, \$2.20 per 80 lbs.

Feed.

Bran \$12, shorts \$14, chopped oats \$25.

Horses.

The demand is good for work horses and the tone of the market is a little firmer than it has been for some time. Good work horses run from \$125 up to \$200, according to quality.

Cattle.

Some improvement is noticeable in the cattle shipping facilities, but the poor treatment accorded this industry has given somewhat of a setback to the export trade, still stock are moving out as rapidly as it is possible to get them forward, and the past week the movement has been particularly heavy. Price is 3c. to 3c. per pound for the usual run. Extra choice steers will bring 3c. per pound off the cars at Winnipeg.

Butchers' cattle are, if anything, a little easier, running from 2c. to 2c. for ordinary stock, up to 3c. for choice animals.

Veal is worth 6c. to 8c. dressed and dressed beef is plentiful at 5c. to 5c.

Sheep.

The rush of western sheep has not begun yet, but with the near approach of cold weather shipments will soon be made. Sheep are worth off the cars at Winnipeg 4c. to 4c., and lambs about 5c.

Hogs.

Hogs are moving a little more freely, but though the market still stands at 7c., yet before this reaches our readers it will likely have dropped to 6c. for choice bacon hogs off the cars at Winnipeg.

Butter and Cheese.

Creamery.—Most of the creameries are winding up the season's business and a number have shut down. The make has been kept pretty well cleaned up and what little is left now in store will likely be held for higher values. There is a good demand for creamery bricks at 19c., f.o.b. factory, in lots of 200 or more. Boxes and tubs are worth 17c. to 18c., f.o.b. factory, but as the quantity on hand is small makers are inclined to hold all October make they may have left for 20c., even if the market does not warrant it at present.

Dairy.—Nice fresh small tubs of good quality will bring as high as 15c. delivered here. Summer grades are not wanted and can hardly be disposed of at 10c. There seems to be no outlet for it. Shipments of the summer's make from Lake Manitoba points are beginning to arrive, but they will not become at all general until colder weather sets in.

Cheese.—The demand is quite good at 8c. for large size and 9c. for small factory cheese.

Poultry and Eggs.

Poultry.—Dressed poultry is coming on the market in larger quantities as colder weather comes on. The quality is pronounced about the same as in other years and the same may be said about the quantity so far as it has come to hand. Spring chickens are worth, delivered in Winnipeg, 9c. alive, 10c. dressed; fowl 50c. a pair, or 8c. dressed; ducks and geese, 8c. alive or 10c. dressed; turkeys 10c. alive and 11c. dressed.

Eggs.—Prices have advanced 1c. since last report, being now 17c. a dozen by the case. They are subject to candling, of course. One dealer received a shipment of 21 cases from a country store and in candling 90 dozen were found bad, that is just three cases, or one-seventh of the shipment. Shipments are small, farmers evidently using most of the eggs laid. Strictly fresh eggs command as high as 30c. a dozen on the local market.

Potatoes.

The market is in a very unsettled state at present. Owing to the shortage in Kansas there is a feeling that there should be a good market there for potatoes, and country merchants are forwarding carlots for this market. So also are the dealers in other parts of the States, the result being that one day saw 500 cars of potatoes in the Kansas City yards. Dealers here are a little shy about forwarding cars now unless sold. There is a duty of 25c. a bushel to pay for entering Uncle Sam's country and Manitoba potatoes are not culled and sorted as they should be. In one case they were dug too green and spoiled. One country merchant sent in a car lot to a commission house and wanted 20c. a bushel net, or he would ship himself. The best the commission house would promise him was 20c. He shipped himself and got 12c. Another man got 10c. At the present time the market is a little easier, 25c. a bushel in car lots, delivered in Winnipeg, seems to be the going price. The market is bound to improve, however, and better prices will prevail later on in the season. But the potatoes must be culled more closely.

Hides.

The market has advanced 3c. a pound since last issue, No. 1 inspected hides now being 6c., with 5c. for No. 2, and 4c. for No. 3. Veal calf skins are worth 8c. for No. 1's. Kip, for No. 1, 7c., for No. 2, 6c. Sheep and lamb skins from 15c. to 40c. Horse hides 50c. to \$1.25.

Wool.

Market nominal at from 7c. to 8c. for Manitoba wool, and 8c. per pound at point of shipment for Territorial wool.

Seneca Root.

The market for seneca root is the highest known for many a year. Owing to the wet weather it has been impossible to dig it, and therefore this is only a nominal price. The high price of 45c. a pound is drawing out some, but if any quantity appeared prices would decline.

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We are offering the above quantity of beautiful young trees, well rooted, about three feet high, for next fall and spring delivery, besides a good stock of small fruits, flowering shrubs, Virginia Creeper, etc. This is the largest and finest lot of Russian stock ever offered in the west. Send for descriptive price list to

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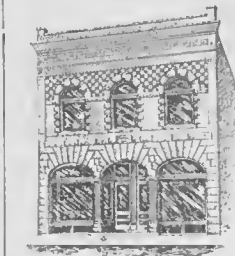
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cuts bone in the most satisfactory way. Leaves the bone in fine shavings easily consumed by chicks or mature fowls. Can't be choked by bone, meat or gristle. Cleans itself. Turns easiest because it is the only cutter made with ball bearings. Several sizes for hand and power. Catalogue No. free. W. J. Adam, Joliet, Ill.

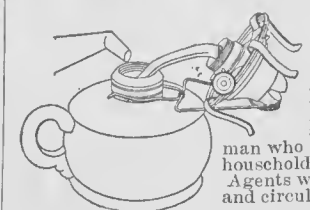


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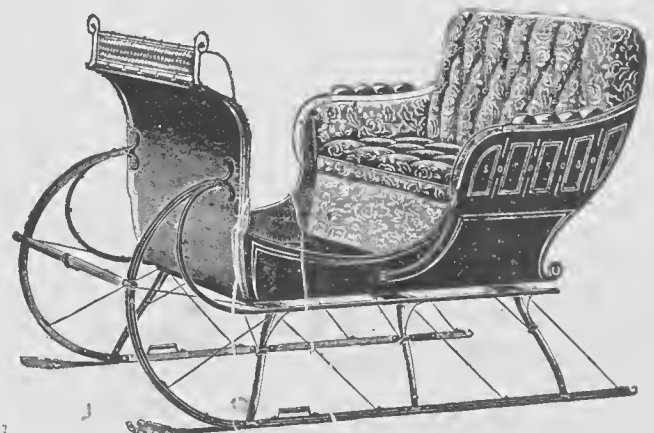
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A. C. McRAE, WINNIPEG, MAN.

The Nor-West Farmer

ISSUED TWICE A MONTH.

Established 1882.

The only Agricultural Paper printed in Canada between Lake Superior and the Pacific Coast. Issued on the 5th and 20th of each month.

THE STOVEL COMPANY,
Proprietors,

608. McDERMOT AVE. & ARTHUR STREET,
Winnipeg, Man.

Subscription to Canada or the U. S., \$1 a year, in advance. To Great Britain, \$1.50.

ADVERTISING RATES.

Transient advertisements, for less than three months, 15c. a line (each insertion). Terms for longer periods on application. All advertisements estimated on the agate line—14 lines to an inch. A column contains 174 lines.

Copy for changes in advertisements should be sent in not later than the 27th and 14th of the month to ensure classified location in the next issue. Copy for new advertisements should reach the office by the 30th and 17th of each month.

TO OUR SUBSCRIBERS.

It is the intention of the publishers of this paper to admit into their columns none but reliable advertisers, and we believe that all the advertisements in this paper are from such parties. If subscribers find any of them to be otherwise, we will esteem it a favor if they will advise us, and we will at any time give our personal attention to any complaints which we receive. Always mention this paper when answering advertisements, as advertisers often advertise different things in several papers.

LETTERS.

Either on business or editorial matters, should be addressed simply "The Nor-West Farmer, P.O. Box 1310, Winnipeg," and not to any individual.

LOOK AT YOUR SUBSCRIPTION LABEL.

When you pay your subscription, watch the name label on the next two issues which you receive. On the first issue following payment, it might not give the correct date—the type-setting machine may make an error and the proof be not corrected before mailing day. But if the date is not correct on the SECOND issue, please notify us by postal card.

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Subscribers who miss any of the issues of "The Nor-West Farmer" should drop us a card at once and secure same, as we want every subscriber to get every copy. Do not delay in sending, as our supply of extras sometimes becomes quickly exhausted.

WINNIPEG, OCTOBER 21, 1901.



READING FOR THE FARMER

Conditions are such nowadays that, no matter what business a man may be following, it is imperative that he keep himself well informed along the lines of his particular calling. The merchant, the teacher, the doctor and the mechanic each has his own periodical, devoted to the interests of his business; and last, but by no means least, the farmer has his farm paper also. And probably for a wide scope of usefulness the farm paper far outreaches them all. The day when anybody could be a farmer, and farming might be done in any sort of rattle-trap way, is fast slipping away; the era when he must be as well posted as any of his neighbors is already at hand, and perhaps in no other country under the sun to-day is more of a premium being placed upon intelligence and progressiveness than in our own Western Canada.

It seems a matter for peculiar congratulation, too, that the farmer in this country should find his needs in this line so well met. In some parts of the world it is really difficult to secure a

farm paper which is exactly suited to the requirements of the country, but the farmer here finds in The Nor-West Farmer a paper which seems to just drop into the breach and meet his needs exactly. Any careful person looking through a single copy of this paper cannot but be impressed with the diversity of help which it holds out. If he be devoting most of his attention to grain-growing, he finds many articles of value in connection with systems of cultivation, varieties of grain, suppression of weeds, stacking, marketing, and so on. If he is interested in ranching or stock farming, he receives the benefit of a very strong live stock department, much attention being given to the conditions of the stock interests of the country, and to the practical experiences along this line of the best men all over the West. A unique and most valuable feature of The Nor-West Farmer is what it calls its "impounded, lost and estray columns." This department is nothing less than a complete list of all the impounded live stock in Manitoba and N. W. T., together with advertisements which are given free to subscribers of lost and estray animals. If the testimonies of those who have recovered stock through this medium were produced, it is certain that they would make interesting reading. The veterinary and legal enquiry columns, in

before. From now to December 31st, 1902, The Nor-West Farmer, together with The Western Home Monthly, will be sent to new subscribers for \$1. Address all orders "Nor-West Farmer, Box 1310, Winnipeg, Man."

RAILROAD FACILITIES.

In a country, where rapid and safe transit is almost a question of life and death to its most important industries, the quality of its railroad facilities is a most important practical question. Our principal industry so far has been wheat growing, and looking at all sides of the case it may be, we think, truthfully said that the C. P. R. has in the past fairly well met the transportation requirements of the men engaged in the trade. There have been occasional hitches, but in the main the shippers and the management of the C. P. R. have all through pulled pretty well together.

Up till a very recent date the same thing could be said about the facilities for the transport of cattle, which, after grain, are our most important product. The Territories have made a very creditable start in grain growing and their present output is only a tithe of what we may expect to see in the next twenty years. But cattle are the peculiar pro-

duct for the shipping department of the C. P. R., is not individually responsible. He has quite enough to answer for without that. But there is a very strong conviction abroad that the policy of the officials in handling the strike of the section hands has had a good deal to do with the irregular and defective running of trains this year. Good time cannot be safely made on bad roads, and corresponding disorganization of the service generally is the natural result.

So far as we know, Mr. Lanigan has made no real attempt to disprove the charges made by the shippers. It is not necessary to go into detail here regarding these charges. Everybody interested is too familiar with them. If Mr. Lanigan can prove from his books that the specific charges of bad supply of cars, prolonged delays and slow runs are exaggerated, it is quite open to him to do so and he cannot bring his proof too soon. If not, he has seriously failed in his duty to his employers and is justly accused by the shippers.

The shippers are free to confess a considerable show of zeal in forwarding such consignments as have been made within the last few days. But as evidence of the spasmodic and unbusinesslike character of the administration it may be mentioned that a car of dressed beef shipped from Winnipeg on October 10th to Sault Ste. Marie was on the 17th still unaccounted for.

What aggravates these shortcomings of the new administration is the fact that the shipments this year have been so much smaller than they were last year, and if our cattle business is to get justice the railroad company on which it is dependent for transportation must turn over a new leaf.

—The sheep sent to the Pan-American Exposition by the Territorial Government were an excellent lot, but the best price offered for them at Buffalo was 3c. a pound live weight. They were brought back to Winnipeg and sold for 4½c. The cattle sent down were sold to go to Montreal.



There have been times when the wild beasts have been more merciful than

human beings, and spared the woman cast to them in the arena. It is astonishing how little sympathy women have for women. In the home the mistress sees the maid with the signs of suffering she recognizes so well, but she does not lighten the sick girl's load by a touch of her finger. In the store the forewoman sees the pallor and exhaustion which mark womanly weakness, but allows nothing for them. It is work or quit.

Doctor Pierce's Favorite Prescription makes weak women strong and sick women well, by curing the womanly diseases which undermine the health and sap the strength. "Favorite Prescription" establishes regularity, dries weakening drains, heals inflammation and ulceration, and cures female weakness.

"When I first commenced using Dr. Pierce's medicines," writes Mrs. George A. Strong, of Gansevoort, Saratoga Co., N. Y. "I was suffering from female weakness, a disagreeable drain, bearing-down pains, weak and tired feeling all the time. I dragged around in that way for two years, then I began taking your medicine. After taking the first bottle I began to feel better. I took four bottles of Dr. Pierce's Favorite Prescription, two of 'Golden Medical Discovery,' one vial of the 'Pleasant Pellets,' also used one bottle of Dr. Sage's Catarrh Remedy. Now I feel like a new person. I can't thank you enough for your kind advice and the good your medicine has done me."

"Favorite Prescription" makes weak women strong, sick women well. Accept no substitute for the medicine which works wonders for weak women.

Dr. Pierce's Pleasant Pellets are the most desirable laxative for delicate women.



MOOSE HEAD PRESENTED TO THE DUKE AND DUCHESS OF CORNWALL AND YORK, BY F. W. THOMPSON, MANAGER OF THE W. W. OGILVIE CO., WINNIPEG.

which free advice to subscribers is given along these lines, are conducted by experienced men, and are well patronized. But perhaps the correspondence column—a sort of open council amongst the readers—is really one of the most helpful of all. It is really a treat to see the way in which subscribers take hold here, and to follow the splendid ideas which are to be gathered. And then there is dairying, poultry-raising, gardening, tree-growing and the markets, all taken up and well handled. And still, besides all this, the good wives and the boys and girls all have their own departments—and they make good use of them, too.

One thing which cannot but please the farmer and rancher is the strongly practical and sympathetic tone which runs through the whole of the pages. It is impossible to read such a paper without feeling that its writers know from actual contact just what they are talking about, and that their interests are essentially those of the Canadian West.

The need of such reading in our farm homes to-day is being realized. The Hon. John Dryden struck the nail fairly on the head when, in a recent speech to farmers, he said: "We need to have some time when we can do a little thinking—when we can get away from the rest of the world; and we need to devote some time to the reading of the best books and periodicals."

Enterprise such as this merits all the success it attains; and the way in which The Nor-West Farmer family of subscribers is increasing indicates a big spread of business. The offers it is making just now should help this paper to even a greater increase than ever

in the public press. A pleasant-faced little man of the freight department at Winnipeg smoothed down the ruffled tempers of the complainers and somehow kept the wheels of the transport service oiled and running smoothly. But that day has gone.

Within the last month columns of complaints from nearly every man in the stock business have appeared in the daily press against the administration of the transport service as it affects the cattle business. These complaints, though numerous, are made with the most careful circumstantiality of detail, and the Boards of Trade of Winnipeg and Medicine Hat have backed the complainants in their demand to have their grievances redressed. For this is not merely a question between a few shippers and the railroad company. It has a serious bearing on the general business interests of the country and must be looked at from that point of view.

Unreliable and very defective supply of suitable cars, slow and irregular service and bad roads all combine to spoil the cattle and injure not only the pockets of the shippers but the reputation of the country which sends out such beasts. For the bad roads, Mr. Lanigan, the officer who undertakes the responsibility



HOME OF J. H. KINNEAR AND SON, SOURIS, MANITOBA.

THE HOSPITAL FOR SICK WHEAT.

In our last issue we gave a very full account of the drying and scouring elevator at Port Arthur. In this issue will be found a pretty lengthy interview with Mr. King, the proprietor, in which he gives personally still fuller details of information on the same topic. The certainty that there will be a considerable amount of wheat of various degrees of toughness must make such information of considerable practical interest to thousands of our readers. In this connection we also give the views of W. A. Doyle, Beulah, and there may be cases in which this suggestion from his last year's experience as to threshing and subsequent handling in small quantities will suffice. On this point of threshing, by the way, the views of Messrs. King and Doyle are identical. But when the damp wheat runs up to carloads, most of which must be marketed, the value to the farmers of a thoroughly satisfactory drying apparatus cannot be over estimated, and it may some day be found good business to have a drying equipment at a few of the big centres of wheat production. The drying could then be done there before, instead of after, the grain had passed Winnipeg inspection and in that way the objection made by Mr. King to the effect of the present law against re-grading may be met. If drying tough wheat puts it in as good condition as if it had never been wet, the inspection at Winnipeg will be all that Mr. King could ask in its favor. Meantime we strongly indorse the policy of drying at Port Arthur, and the farmer who ships by the carload will get all there is in it.

THRESHING BY MEASURE.

In a case dealt with by Judge Wetmore, at Moosomin, the Pheasant Creek Threshing Co. sued Teece for the amount of a threshing bill. He put in a counter claim because the machine threw out a lot of wheat with the straw. The judge threw out Teece's claim for damages on the ground that during the time the threshing was being done the weather was damp, and if Teece was not satisfied with the work done he should have stopped it. But the judge threw out the pursuers on the ground that the Federal statutes recognize no standard except a weighed or measured bushel. This law enables a tricky man to get out of paying, but is certainly unfair to the thrasher. We hold that by the rule of common sense if a man agrees beforehand to take a sack from the mill as equivalent to two bushels, he ought to be held liable for the work done, and the law cannot be too soon amended to that effect.

MEAN ILLBRED CATTLE.

A vigorous stirring up of the C. P. R. transport service may put the shipping business on a much better footing than it has lately been. But our cattle business has another serious drawback, not likely to be so readily got over. For the last spring or two train loads of

eastern stockers have been shipped west to the ranches. The profitless character of most of that stock is now being painfully demonstrated. It is not so much that they cannot in time be fattened that the scrubs which formed the bulk of those shipments have proved so unprofitable. They are on foot worth from a cent to a cent and a quarter less per pound than well-bred steers of the same weight. Every butcher knows it and the ranchers who invested in those coarse low grade cattle now know it also—to their cost. Scrub cattle may be set down as \$12 to \$15 per head less value than well-bred stock of the same weight. Best "export" cattle are worth \$3.75 while "butchers" cattle only bring \$2.50. As we write some choice export cattle are going through the Winnipeg yards and their breeding is unmistakable. Pure bred sires of a type adapted to range conditions are the only reliable source of profitable range stock. Pampered young bulls with fancy points are not the kind of sires wanted in the Northwest. Animals possessing good constitution, strong head and horn and sound legs of the type of Barron's Topsman are the kind to be sought for and too fine bone is no recommendation on the range, though it may be all right for park cattle. Ontario bulls, often forced, to bring them out early and make promising yearlings, run down terribly when let out on the range, and western ranching will not flourish as it should till the right kind of bulls are used on the ranches themselves and only well-bred beef grades taken west from other provinces.

—In North Dakota threshing gangs are scattering on account of wet weather, and, there as here, there is considerable risk of the grain not being nearly threshed out this year. Much of the flax crop will be lost through this cause. The men are leaving for the lumber woods by the hundred.

—A 2-year-old child in the Emerson district and one of 3 years near Dauphin have had lately very narrow escapes from drowning, due to loose boards covering otherwise open wells. We sometimes do our work too easy in this pushing new country. The saving of a cent's worth of nails may lead to a funeral.

—We now have on hand a supply of "The Traction Engine," by J. H. Maggard. It is a book of instructions for operators of farm engines. Price, \$1.00. Address The Nor-West Farmer, Winnipeg, Man.

—The town of Arcola is going to raise a couple of thousand dollars for public improvements. The people are alive to their interests and are now setting about to get a branch of some chartered bank established in their growing town. Not so bad for a town that has grown up in about a year's time.

—There are a large number of subscriptions to The Nor-West Farmer which expire soon. Remember that you are paid to the close of the month printed on the colored label on the outside of the paper. Thus, Dec. 01, means that your subscription expires with December 31st, 1901. In sending in your own renewal, send in that of a new subscriber as well.

—The last Thursday in November, the 28th, has been set apart as a day for national thanksgiving. This is the same day as is observed in the United States. Last year Thanksgiving came the 18th of October. All the fruits of the field may not be gathered by that date, i. e., threshed, but the weather is almost sure to be finer in October than in November, and on the whole a more appropriate date. November 28th is too late.

—At Indian Head the other day an elderly man was killed by staying too long on the train bidding good-bye to some friends that were leaving. Every few weeks we read of accidents more or less serious resulting from this imprudent practice. As a rule the people who do so jump off the opposite way from that in which the train is travelling, and so are pretty certain to be whirled round and rolled off the platform under the wheels of the train.

—One of the grandest efforts along the line of education is being put into force by the United States Government. Having taken the Philippine Islands, the Government is determined that its people shall enjoy all the privileges that the rest of the nations do, and that the best way to make them a contented and loyal

people is to educate them. Accordingly 1,000 teachers are starting for the islands at once to teach the young the English language, and, of course, American ideas.

—Our Legal column of this issue gives an interesting example of the confiding simplicity of some of the pioneer farmers of the new West. The writer negotiated for a loan at 8 per cent., the interest payable yearly. After some delay a mortgage is sent him, which he signs without reading it. By and by he finds that he has contracted to pay 9 per cent., payable quarterly. We hope there are not many people so simple as to do that. But every day there are cases in which a farmer signs a note "just to get the thing off his mind," or for some equally wise reason, and when the time comes round at which he must meet the note he is ready to swear that he was inveigled into signing by some tricky agent. Once for all, we would like to warn these very trustful people that there is no getting round a mortgage or a note signed on such weak pretexts. A note obtained by fraud is occasionally, but very rarely "voidable," if you notify the holder to that effect, but if you let even such a note run on to maturity you could not escape once in a million times.

Every Farmer

In Manitoba and N. W. T.

Do you want the best WEED CUTTER that ever came into the country? If you do, order from B. Bell & Son, St. George, Ont., or Joseph Wylie, Lumsden, Assa. This Weed Cutter contains 13 small shears or cutters, half of which cut to the left, the other half to the right. It cleans the land of couch grass and all weeds at one stroke, leaving a fine seed bed. The inventor of this grand implement has the third crop of wheat on land since plowed that will yield 35 bushels to the acre. Order one of these Weed Cutters; every prosperous farmer will have one. Has been used two years and pronounced a success by every one who has seen it work. Will put stubble land in good condition for crop without plowing. J. Wylie, the inventor, has a very heavy crop of wheat on breaking torn to pieces by this new Weed Cutter. You want one and will buy when you see it work. Address—

J. WYLIE, Lumsden, Assa.
Or B. BELL & SON, St. George, Ont.



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HOME OF M. YOUNG V.S., ON HIS FARM NEAR MANITOU, MAN.



Neepawa.

About half a mile to the south of the town of Neepawa is the home of J. A. McGill, well known as a successful breeder and exhibitor of Berkshire swine. His buildings are pleasantly located on a green slope overlooking the town reservoir. An illustration and plan of his excellent house was given in our issue for April 20th, 1900. But though his buildings are good and so nicely situated, it is the fifty odd head of swine that are of the greatest interest to us. Mr. McGill makes it a point to always have a capital boar at the head of his herd, as he is a thorough believer in the great advantage there is to be derived from high class sires in building up and maintaining a herd. At the head of his to-day he has Duke of Olifford, a home bred two-year-old, first at Winnipeg under 12 months in 1900, and first again this year as boar under two years old. He is an extra lengthy fellow of good size. Another two-year-old boar used in the herd is Oxford Manitoba. He was bred by R. H. Stone, Trumansburg, N.Y., and though not quite so long a hog as the Duke, is a thick fellow with a grand shoulder and has proved himself a good stock getter. Eden 529, a three-year-old boar bred by J. H. Sieffert, North Bruce, Ont., is by Boydston Lad, dam Black Sally, she by Kitz Lee. He is a large and lengthy fellow and though only placed second in the aged class this year at Winnipeg, yet Mr. McGill expects to get excellent stock possessing both length and quality from him when mated with the fine sows in the herd. Our choice of the sows is Charmer, now four years old. She was bred by J. G. Snell and is by Baron Lee 4th. Her breeding is of the best and that she is good individually may be inferred from the fact that she was first as an aged sow last year and diploma sow this year at Winnipeg. Another, Nora, five years old, also of Snell's breeding and by Star One, imp., is a smooth good sow that will scale 500 lbs., though she has been running on grass all summer. Rosamond, a four-year-old bred by Snell, is a typical Berkshire, well developed and has been a money maker for Mr. McGill, as she has always had large litters and is an extra good mother. Three yearling sows attracted our attention. They were smooth, well grown ones and were being kept up and will be bred so as to come in in the spring. At the time of our visit the stock of young pigs were arriving. Three sows had already littered and two were due to come in shortly. Those that had arrived were thrifty looking youngsters and were being well cared for. The demand for fall delivery is good, so Mr. McGill says.

Westbourne.

A visit to the pioneer herd of Sborthorns is always one of interest to the agricultural scribe, as Walter Lynch is a genial host and gives all visitors an enjoyable time. He enjoys a reputation throughout the west for his ability as a breeder and his straightforward dealing. At the time of our visit he had just returned from judging cattle at Russell exhibition, a task in which he is an expert and in great demand. Mr. Lynch takes great pride in showing his stock, and well he may. In all the herd now numbers about 60, at the head of which is Scottish Canadian (imported in dam), sired by Violet Boy (75835), dam Crocus 24th, imp., 31198, bred by G. Sheperd, Shethin, Aberdeenshire, Scotland. He is a low down, growthy fellow, handles extra well and has a broad, level, well covered back. He carries his flesh well down in the twist, has a strong masculine head and good brisket. He has now been used on this herd for the past 18 months, and all the young things by him stamp him as a sire of unusual merit. He is a worthy successor to Village Hero, so long and worthily at the head of this herd. Of the females, it is of interest to note that they are all home bred, a good share of them being by the old stock bull. Among them and their progeny special notice may be made of Inogene 2nd, 20197, a five-year-old, out of Lady Grey, by Village Hero. She is a roan of good size, with an A1 back, well filled crops, a grand front and typical head. She is suckling a roan bull calf, two weeks old, a promising fellow, by the stock bull. Rosette 14th, 32688, a red six-year-old out of Rosette 7th by Village Hero, is one of his choice cows. She is in excellent flesh, well matured, and presents a very pleasing front. She, too, is suckling a fine bull calf—a red fellow, three weeks old and by the stock bull. Truth 2nd, 32691, another of the old bull's get, is a large red four-year-old of the roomy type, but carrying a good covering of flesh and has a most pleasing head. She has also a two weeks old bull calf at foot, by the stock bull. Rosette 11th, 30198, a red six-year-old, out of Rosette 9th, is a cow of good size, of the thick fleshed kind. She has an extra well sprung rib and though she has had nothing but grass all summer, proves her beefing abilities by carrying a wealth of flesh well laid on, on her broad back. Her last calf, now 11 months old, is a choice heifer and in good flesh. Space will not allow us to mention more of the older females, but there are a lot of them. Turning to the two-year-olds, our pick of the bunch was Ruby 3rd, a solid red of good size and excellent handling quality, with a well sprung

rib, nicely covered back and a typical head. Faith 2nd, 36190, a light roan two-year-old, out of Faith and sired by What For No, 24606, is of the low set kind, beefy and a good handler. Rosette 15th, a yearling, is another roan by What For No and out of Rosette 13th. She is well grown, in good flesh, handles well, has straight top and bottom lines and a nice head. This year's crop of calves are a mossy coated, sappy, growthy lot, speaking well for the stock bull.

Portage la Prairie.

A drive of 11 miles northeast through the famous wheat fields of the Portage Plains brings one to the Plain View Stock Farm, the home of F. W. Brown. A few years ago a commodious stock barn was built on this farm, a description of which was given at the time. This year a lean-to, running the full length of the barn and on a stone foundation, with cement floor, is being added. A large and commodious brick house has also been completed this year, a photo of which we hope to give later. Mr. Brown breeds Sborthorns, Berkshires and Cotswolds and his stock are no strangers to show ring honors in past years. His old well known stock bull, Lyndhurst 4th, first prize winner in the aged class at Winnipeg last year, having been sold, his place was filled with Spicy Robin, 29576, bred by J. & W. B. Watt, Salem, Ont., sired by Red Robin, 24808, dam Village Maid, 24760. He is a well developed three-year-old roan, of the low down, heavy fleshed kind. He has a grandly covered back, handles well and is a bull with plenty of style. Among the females noticed were: Galety 5th, 27767, a light roan seven years old, bred by J. Watt, and sired by Clipper King, 16293, and out of Galety 4th, by Barmpton Hero. She is of high individual merit and a Winnipeg prize winner. She is in excellent flesh and suckling a red bull calf by Lyndhurst 4th. This is a large, well developed calf, with level back and well filled quarters. He gives promise of making a bull of great scale. Flossie Fergus, 26229, a red roan bred by Jos. Tindale, Fergus, Ont., by Rajah 2nd, 14610, and out of Snowball of Fergus, 13186, is a massive cow showing great depth and width. She is in high flesh, handles well and is suckling a capital calf by old Lyndhurst. Another of the cows is Adala, 27020, a red six-year-old, sired by Prince Charlie, 15431, out of Bonita, 15937. This cow and her calf are among a few recent additions to the herd. She should prove a useful animal in Mr. Brown's herd, as her breeding is of the best, tracing to British Hero and Clear Grit. She is good under the hand and of high individual merit and carries a wealth of flesh. The heifer calf she is suckling is by Lord Green, 24269, and a meritorious one. Another recent addition is Lady Constance 58th, bred by F. C. Sibbald, Sutton West, Ont. She is out of Lady Constance 46th, 30780, and sired by Charles Second, 23725, and is red and white in color, has a well covered back, a well sprung rib and is with calf to Mackintosh (imp.). In all Mr. Brown has 33 head of Sborthorns. This year's crop of a dozen calves, nearly all by Lyndhurst 4th, are a good lot, speaking well for the breeding qualities of the old bull. Ten of them are bulls.

The Berkshire herd now numbers about 50 head. Among them are many good individuals, prize winners at the leading fairs in other years. They have had the run of a large pasture during the summer, in which there was plenty of willow shade, but owing to scarcity of feed last winter the herd was not in as high flesh as we have seen them in previous years. The Cotswolds, though only numbering 15, are of good quality and in excellent condition, the greater portion of them being show animals. They, with other stock, were on a nine-acre pasture, three acres of which was brome, another three of timothy and the balance mammoth red clover. The clover was sown in the spring of 1900, and owing to the stubble holding the snow it came through the winter well. The sheep have eaten it down very close, while the timothy and brome was knee high at the time of our visit. Mr. Brown is much pleased with the results this three acres of clover has given him and intends scattering straw lightly over it as a winter protection. We will be very much surprised if the clover winters well, as it has been pastured so close, all the stock preferring it to either the timothy or brome.

Shoal Lake.

A representative of The Farmer took a run out from Shoal Lake to the farm of Robt. Menzies, which lies about seven miles to the north of the town. Mr. Menzies is an old timer, having come in about 22 years ago. His pioneer stock buildings of logs have recently given place to a substantial modern barn, with 10 feet of studding on a 9 ft. stone wall. The barn is 38 x 100 ft. and will give splendid accommodation for his stock. Mr. Menzies is quite a horseman, and some time ago purchased from J. A. S. Macmillan, Brandon, the Clydesdale stallion Pilgrim, 7020, sweepstakes winner at Winnipeg in 1900. This horse was bred in the States and is proving a good one. He has had a very heavy season, but is in excellent condition. Another of his horses, Glenbuck, imp., (10762), was bred by Jas. Weir, Sandlands, Lapark. He was foaled in April, 1893, and is by Montrave Sentinel and out of Orphan (13665), by McHugh. He is a bay in color, with grey hairs, hind legs and near fore pasterns white. Glenbuck has plenty of bone of fine quality, is well coupled and promises to make a big, useful horse in Mr. Menzies' hands.

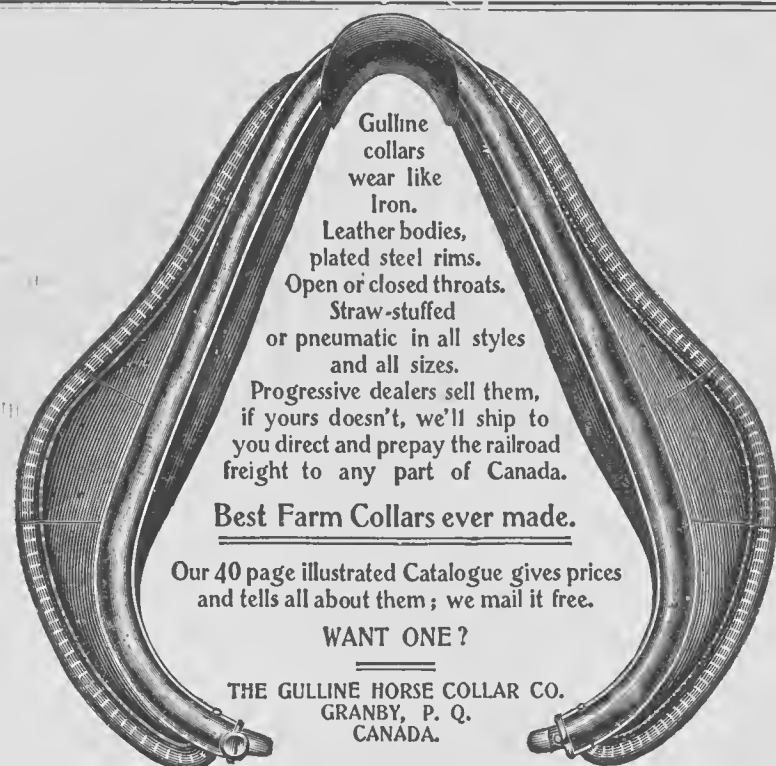
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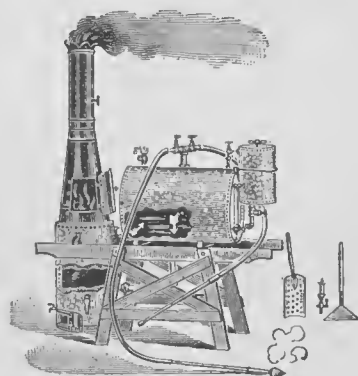
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By steaming or cooking their stock's food during the fall and winter months with **RIPPLEY'S FOOD COOKERS**, which sell from \$5.00 to \$45.00. Made of boiler steel, will last for years. Can't blow up. Will cook 25 bushels ground feed, wheat, or roots in two hours. Will heat water in tanks 200 feet away. Can be attached to a chimney, or used outside. Fine for the ladies for washing clothes, or for heating water to scald hogs, etc. Will burn chips, coal or chunks of wood.

NOTED BREEDERS AND OTHERS THAT ENDORSE AND USE THEM
W. L. Trann, Crystal City; Jas. Cuddis & Son, Wawanesa; Marshall Tuck, Portage la Prairie; Jno. Lait, Medicine Hat, Assa., N.W.T.; Brethour & Saunders, Burford, Ont.; D. C. Flatt & Son, Millgrove, Ont.; H. J. Davis, Woodstock, Ont.; Ontario Agricultural College, Guelph, Ont.; J. A. MacDonald, Hermanville, Prince Edward Island; J. G. Cameron, Annapolis, Nova Scotia; C. H. Giles, Fredericton, New Brunswick.

Order through your home dealer or send order direct to us. We want a live agent in each locality to sell our Cookers, Feed Grinders, Steel Tanks, Sprayers, etc. Write for catalogue showing what is to be saved by using our cookers and grinders.

RIPPLEY HARDWARE CO., Box 5, GRAFTON, ILL., U.S.A.

FARM IMPLEMENTS

The implement business has been good for the past season and promises to be much better next year owing to the great influx of new settlers. At present the demand is for winter goods and an early fall of snow will greatly accelerate this trade. The wet weather is developing a new demand in the line of threshing outfits. Instead of the big complete outfits, three or four farmers are clubbing together and getting a smaller one, such that they can easily handle with their united force of men. It is becoming more apparent every year that the threshing must be done quickly and more machines are needed in order to do this. A smaller outfit, costing from \$1,400 to \$1,700, can be obtained that would suit three or four farmers. It can be paid for in three payments and the ordinary yearly threshing bill of these men would more than meet the yearly payment. There is a serious offset to this plan this year, however. Owing to the straw being coarse and tough the threshing is heavy, and as the straw in such condition is poor fuel, many of the small engines have been unable to keep up the steam necessary to do a full day's work. One machine man says that there are not one quarter enough machines in the country to do this year's threshing. Many machines are now running short handed. Owing to the wet weather holding back threshing and consequently the marketing of grain, no money is moving and collections are slow.

A report comes from Lacombe that threshing operations have just commenced at that point.

E. Laycock, of the McCormick Harvesting Machine Co., Brandon, paid Winnipeg a visit this week.

J. R. Norris, general agent of the Gaar, Scott Threshing Machine Co., is out on an inspection trip through Assiniboia.

H. F. Anderson, the well known implement dealer of Winnipeg, is expected home from the old country the first of November.

W. A. Cavanaugh, manager of the Winnipeg branch of the McCormick Harvesting Machine Co., is making a trip through Southern Manitoba.

R. H. Potter, of the Warder, Bushnell & Glessner Co., is making a trip through Western Manitoba in the interests of the Champion binders and mowers.

T. S. Wright, Winnipeg, western agent for White & Son's threshing machinery, the Rock Island plows and other farm machinery, is making a trip through Southern Manitoba.

R. S. Whaley, travelling agent of the Frost & Wood Co., with headquarters at Regina, paid the Winnipeg office a visit this week. He reports things backward in the Regina district and little threshing done yet.

Johnston & Stewart report a busy fall trade in plows and wagons. Mr. Stewart is at present in Western Manitoba and reports a disposition on the part of buyers to buy freely for next season's business if the present crop is safely threshed.

W. B. Pound, of the McLaughlin Carriage Co.'s Winnipeg house, has just returned from a trip along the Glenboro line and to Carman and Roland. He reports that farmers are feeling more hopeful than they did a week ago.

J. D. Balfour, of the Balfour Implement Co., Winnipeg, has just returned from a trip through the Brandon district. He reports trade as rather backward owing to the wet weather and dealers moving slowly until they see how things are going to turn out. He reports a great scarcity of men for threshing outfits.

The McLaughlin Carriage Co. are introducing a cutter with a top on it, and portable sides, or storm boards, which reach from the seat to the dash board and protects the driver's legs below the knee and prevents the wind getting in under the robe. It is meeting with great favor and the cutter is well named "Manitoba Comfort."

Chas. Wahn, a prominent implement dealer of Gretna, paid the J. I. Case Threshing Machine Co.'s Winnipeg office a visit this week. He reports considerable depreciation in the wheat on account of the wet weather, and that farmers are feeling blue. He thinks, however, this will largely disappear if the present fine weather continues.

Archie Watson, of the Watson Manufacturing Co., has just returned from a trip through the Edmonton country. He reports the crops as being better than they were last year, but that they are only just finishing up the cutting and that but very little threshing has been done as yet. Quite a bit of damage has been done through wet weather and in some places grain has sprouted.

F. Lee Norton, Racine, Wis., manager of the sales department of the J. I. Case Threshing Machine Co., paid the Winnipeg branch house a flying visit the beginning of this week. Mr. Norton is on his way to the Pacific coast branch houses, returning by way of San Francisco and Salt Lake City. While here he expressed himself as surprised at the extent of the hauling operations and improvements that had taken place in Winnipeg during the season.

"I think The Farmer is the best paper any North-Western farmer can take."—Richard Brown, Carleton Place, Assa.

HER FATHER WAS A DRUNKARD

A Plucky Young Lady Takes on Herself to Cure Her Father of the Liquor Habit.

STORY OF HER SUCCESS.



A portion of her letter reads as follows: "My father had often promised mother to stop drinking, and would do so for a time, but then returned to it stronger than ever. One day, after a terrible spree, he said to us: 'It's no use. I can't stop drinking.' Our hearts seemed to turn to stone, and we decided to try the Tasteless Samaria Prescription, which we had read about in the papers. We gave him the remedy, entirely without his knowledge, in his tea, coffee, or food regularly, according to directions, and he never knew he was taking it. One package removed all his desire for liquor, and he says it is now distasteful to him. His health and appetite are also wonderfully improved, and no one would know him for the same man. It is now fifteen months since we gave it to him and we feel sure that the change is for good. Please send me one of your little books, as I want to give it to a friend."

FREE SAMPLE and pamphlet giving full particulars, testimonials, and price, sent in plain, sealed envelope. Correspondence sacredly confidential. Address **The Samaria Remedy Co., 31 Jordan street, Toronto, Canada.**

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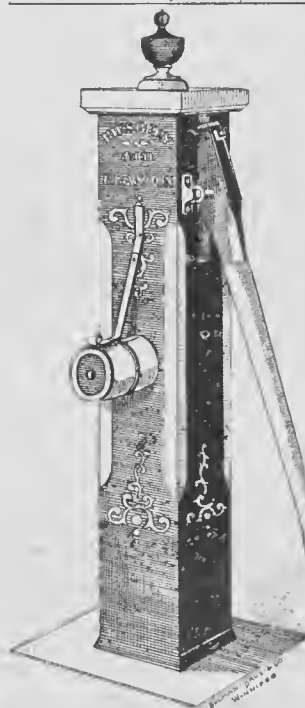
"The Nor-West Farmer is the best paper we take."—W. Cary, Blackwood, Assa., Sept. 10th, 1901.

CHATHAM SLEIGHS WAGONS

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GANGS AND SULKIES

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Farmers & others needing Pumps, send for our illustrated catalogue and price list.

We have a fine line of our Standard Stock Pumps on hand.

All pumps are fitted with Porcelain lined Cylinders, and are warranted to work satisfactorily.

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ENGINE, BOILER & SEPARATOR REPAIRING

We can send experts to any part of the Province or Territories on shortest notice.

We keep a full line of Flues, Flame Sheets, Liners, and all Threshers' Repairs.

We pay the highest cash or trade prices for metal, also for scrap brass and copper. If you have any, send it in at once, or write for instructions.

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Iron and Brass Founders,

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SEE OUR NEW THRESHING ENGINES.



\$3.65. SEND NO MONEY

Send us the name of your nearest express office and we will ship you this pair of **Genuine Lamer Field Glasses** for examination. When you receive notice of their arrival, call at the express office, examine them thoroughly, and then, if satisfied, pay the express agent \$3.65 and charges, and secure this great bargain. These glasses are made by the celebrated French optician, Lamer, Paris. They have fine real Morocco body and extension hoods or sunshades, and beautifully finished Japaned tubes and trimmings. They are fitted with the finest achromatic lenses of high power and definition, the object-glasses measuring over 2 inches; length, closed, 6 inches; opened, 10 inches. Complete in waterproof carrying case, with straps, for only \$3.65, much less than half regular retail price. No one can afford to be without a pair. They are almost invaluable to farmers, ranchmen, hunters, fishermen, tourists, etc. Customers write us that they have never had so much pleasure from a small investment as our Field Glasses have afforded them. Our stock is limited, so order to-day. **JOHNSTON & CO., BOX 311, TORONTO, ONT.**





In this department we publish as full a list of the impounded, lost and estray stock of Western Canada as is available. Notice in one issue, not exceeding five lines of lost or estray stock is given free to any of our subscribers who forward information. Notices exceeding above mentioned length will be chargeable at the rate of 10 cents per line on all overplus matter. The list of impounded stock is compiled from reliable sources.

All impounded notices appearing in the Manitoba and N. W. T. Gazette will be found in this column.

By LOST stock is meant stock that has been lost and the owner advertises to find them.

By ESTRAY stock is meant stock that has wandered on to a person's place, or into his hand, and is advertised to find the owner.

Write the letters of all brands very plainly. Display notice in black-faced type will be given for \$1 (which must be enclosed with the order), such notices not to exceed 40 words.

The following is a list of live stock impounded, lost and estray appearing since Oct. 5th issue:—

Lost.

Erinview, Man.—One team greys, branded WS on left shoulder, had halters on when they strayed away. Thos. Bolingbroke, 24, 16, 1w.

Greenridge, Man.—Four spring calves, three bulls and one heifer, three nearly all red and one marked with white. T. Hossick. Macgregor, Man.—From 2, 10, 24, Orangeville, one red bull calf with white spot on forehead. Thos. C. Leech.

Macgregor, Man.—Six spring calves, one white steer, one white and red spotted steer with white spot on forehead, three red heifers with white marks and ropes on their necks. Roger Bell.

Macgregor, Man.—Strayed from Austin about Sept. 12th, a three-year-old bay colt, has three white feet and white star on forehead and white stripe on nose. Reward. Booth Bros.

Oswald, Man.—About June 1st, 1901, a hay mare, had halter on when she left, forelock was clipped, had hair rubbed off right hind foot by a rope. Harry Moulton.

Sidney, Man.—One red cow, four years old; one red heifer, one year old; one roan heifer, one year old; one red steer, one year old, all muley. Win. Hall or Mr. Thompson.

Stonewall, Man.—One bay filly, three years old, with two white hind feet, very quiet. John Gunn.

Strathcona, Alta.—From Edmonton exhibition grounds on July 5th, one brown mare pony, three years old, weight 760 lbs., black points, heavy mane falling on both sides, small lumps on either jaw caused by rope. Gray & McGee, liverymen.

Strathcona, Alta.—Mare branded D2 on left shoulder, brown, with small white star on forehead and white on both hind feet; weighs about 1,200 lbs. Wm. MacLaren.

Impounded.

Brandon, Man.—One hay mare, about five years old, with halter on, marked on left shoulder 1, white left hind fetlock, swelled joint on right front fetlock. J. Mansfield.

Crescent Lake, Assa.—Brown mare, about eight years, hind feet white, white stripe down face running over to right nostril, branded AK on right shoulder, foal at foot; buckskin mare, three years, black mane and tail, left hind foot white, branded AK on right shoulder, ribs and hip. Reward for information leading to recovery. Thomas William McGrath.

Moose Jaw, Assa.—Mare, bay, branded JM on right hip and B on right shoulder; mare, bay, branded D lazy 2 on left hip; mare, chestnut, white star on forehead, branded triangle (with apex turned down) on left shoulder. James Campbell, 22, 17, 23w2.

Oxhow, Assa.—Boar, over year old, long nose, short tail. Edward Crank, N.W. 12, 3, 3w2.

Pheasant Forks, Assa.—Horse, grey, front feet shod, halter on, no brand; horse, grey, shod all around, halter on, no brand. J. W. Matthews, N.E. 20, 21, 8w2.

Estray.

Calgary, Alta.—Since four years ago, gelding, about 14 hands, brown, nine years, small white stripe on face, branded circle with 4 under on right shoulder and lazy B on left shoulder. Albert Marshall, 18, 22, 1 w5.

Didsbury, Alta.—About 1st of August, horse, pony, dark grey, branded UB and VN on left shoulder, IB on left hip and V lazy R on right hip. I. de Fehr, 1, 31, 29w5.

Hyde, Assa.—Since about May last, filly, bay, white star in face, about two years; heifer, yearling, white; heifer, yearling, red. A. N. LeCain, 10, 19, 7w2.

McDonald Hills, Assa.—Since end of April last, filly, two years, black points, light bred, no brand, very lame. John McDonnell, 30, 24, 15w2.

Nut Lake—Mare, roan, small, branded JJP. Peter Prouse.

Olds, Alta.—Since Sept. 1st, sow, large, white, about three years old. Peter Peterson, S.E. 24, 32, 8w5.

Rothbury, Assa.—Since about August 1st, mare, bay, with foal at foot, bell on, branded GD on shoulder; horse, roan, branded GD on shoulder. James E. Normington.

Yorkton, Assa.—Mare, four years, dark iron grey, foal at foot, ear on right hind foot at fetlock joint; horse, bay, halter on, white stripe on face, about 1,000 lbs.; horse, black, white stripe on face, about 1,000 lbs.; horse, black, white stripe on nose, about 1,000 lbs. William Stram.

Yorkton, Assa.—Since early part of winter of 1900, steer, two years old, black and white, branded UA on left ribs; steer, three years, black and white, branded DYS (or DY5); cow, red and white, WB on left hip. S. Rickard, 12, 24, 9w2.

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EUREKA HARNESS OIL

Unequalled by any other.

Renders hard leather soft.

Especially prepared.

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An excellent preservative.

Reduces cost of your harness.

Never burns the leather; its

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Secures best service.

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Special Fur Jackets.



If you want a high class Alaska Seal or Persian Lamb Jacket we have something to suit you — we manufacture all our garments on the premises from specially selected fur.

ALASKA SEAL, \$150 to \$250

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Write for style book and self-measuring card. Our mail order department is reliable. Money refunded if purchase is not satisfactory.

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Instruments Tuned and Repaired.

Oils and Needles for all Sewing Machines.

CHAS. GRABAN, Portage la Prairie.

BRANDON SEED HOUSE

We are importers and Exporters of

Seed Grasses and Special Samples of all kinds of Grains.

We invite farmers having either grass seeds, clovers, or special samples of choice grains for sale, to correspond with us and send samples.

A. E. MCKENZIE & CO., BRANDON, MAN.

When writing, please mention THE FARMER.

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Of all Grades and
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Large Game, Chickens, Ducks, Geese.

We have the goods to suit all tastes and purses.

Our Catalogue gives full descriptions. Get it.

THE HINGSTON SMITH ARMS CO'Y, WINNIPEG.

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(PASTEUR BLACKLEG VACCINE

QUITE READY FOR USE.)

This is in form of a cord impregnated with the vaccine. Each dose is separate. It is applied with a needle with detachable handle, called a Blacklegine Outfit. It is applied as easily and rapidly as taking a stitch. No mixing, no filtering, no injecting, no expensive "outfit" or syringe.

Prices: "Single Blacklegine," No. 1 (10 doses) \$1.50; No. 2 (20 doses) \$2.50; No. 3 (50 doses) \$6.00. Double Blacklegine" (first lymph and second lymph, applied at an interval of ten days), \$2.00 per packet of 10 doses. Blacklegine Outfit (handle and needles) 50 cents.

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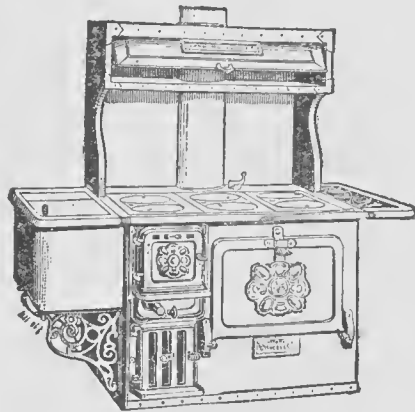
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Has won an enviable reputation in the stove world. In its construction every important improvement has been added, which has made it the most desirable steel range for domestic use.

Every detail has been carefully studied to make it efficient and we are proud to offer it to you as a model of steel range construction at a reasonable price.

We make this magnificent Steel Range as illustrated with four or six No. 9 cooking holes. It has a large copper reservoir, is fitted with improved duplex grate to burn any kind of coal; the oven is large and is lined with asbestos board.

It will bake Biscuits in THREE MINUTES, using a very small amount of coal.

Price as illustrated with { 4 No. 9 Cooking Holes, \$55.00 } F. O. B. at
(to burn coal or wood) " { 6 No. 9 " \$60.00 } Winnipeg.

We give a guarantee with every Range sold

If not kept in stock by your local stove dealer write to us for further particulars.

GURNEY FOUNDRY COMPANY, Ltd.
WINNIPEG.



A Hospital for Sick Wheat.

In our last issue we gave a very full and profusely illustrated description of the drying and cleaning elevator at Port Arthur. The recent unfavorable weather has given a serious turn to our crop prospects, and we believe every one of our readers who has got caught and has now a lot of tough wheat on his hands will be glad to know all that can be told of the capabilities of that concern, and the conditions and cost of handling it there.

Having learned that J. G. King, the proprietor of that elevator, was in the city, we took the opportunity to interview him at considerable length, and give below his replies to our questions. As is already well-known, this means of correcting the defects of damp and unclean wheat has been operated for several seasons and has proved highly satisfactory. The wheat, after being dried, has been made into flour by many of the principal millers of Canada, and the results proved that the quality of the wheat was in no way damaged; that in fact wheat well cleaned and dried was equal to standard grades that had not gone through the process.

"When did you begin to dry wheat?"
Answer—"The first wheat we dried was in 1892, by spreading it on the dock and letting the sun and wind dry it. At that time no machinery was invented that would dry wheat so that flour could be made from it. It was only about three years ago that the first satisfactory machine for this purpose was invented. For some years, whenever a report of a machine to dry wheat came out, I took the trouble to inspect the machine. None of them proved satisfactory, until this machine came out. Whilst there has been no improvement in the principle of this machine since then, there has been an improvement in the facility of working it. It is very satisfactory, though I think improvements can still be made."

"How much did you dry the first season?"
Ans.—"We did not get the plant started until about the middle of January, 1898, and that season we dried about 3,000,000 bushels of grain."

"Has experience proven that wet wheat, after drying, is of less value than tough wheat?"

Ans.—"Not unless the grain has sprouted. We find that the gluten in wet wheat is not damaged unless fermentation has started."

"The amount of your work will only be in proportion to the condition of the crop and its requirements from year to year?"

Ans.—"Yes, that is so with wet and smutty wheat. For instance, one year we only handled 250,000 bushels, whilst another year our elevator was employed night and day cleaning smutty wheat."

"You had a lot of last year's crop to dry?"
Ans.—"No; it was found that the keeping quality of last year's no grade wheat was exceptionally good, owing, I think, to the superior quality of the wheat before the rain came on."

"In your experience, does the grading by the present system of inspection harmonize with the output of the miller or the baker?"

Ans.—"Not always; for example, the smaller wheat of the Greta plains grades rather low on inspection, but a skilled miller will buy that wheat in preference to wheat of a higher grade, and better looking wheat that is of coarser quality."

"What do you consider the outcome of the wet weather we have been getting?"

Ans.—"The first thing is the damaging of the color of the bran, the wheat becomes 'bleached.' But this does not in any way affect the quality of the gluten covered by the bran if the moisture is properly dried out of it."

"Then, Mr. King, in your judgment, the injury done by the wetting is more apparent than real, provided the water is thoroughly dried out of it?"

Ans.—"Yes, unless the grain has been previously sprouted or heated."

"In your opinion the loss of bloom consequent on bleaching, which the inspector must take into account when making his grading, is more injurious to the selling value than to the actual milling value of the wheat after it is dried?"

Ans.—"Yes."
"Then you think it would be fairer, and increase its value to the farmer, if it were permissible to re-inspect the 'no grade' wheat after it has been dried by your process?"

Ans.—"Certainly, and until the introduction of the present inspection law, re-inspection of 'no grade' wheat, after being dried, was allowed. Since the introduction of the present system re-inspection is not allowed, and the effect of this change is a serious loss to the farmer who has 'no grade' or smutty wheat, and such grain is dried and cleaned, for when grain is offered by sample on other than the regular grades, the prices offered are sure to be less than if it carried the regular grade; and as the purchaser is either in Eastern Canada or Europe he cannot judge the grain himself. But if the dried or clean grain was found good enough by the inspector to be equal to the standard of any of the regular grades, he should certainly be allowed to grade it, and the full price would then be obtained by the owner."

"Part of the wheat you have thus dried and cleaned has been sold to millers all over Canada?"

Ans.—"Yes, and their report in every case has been that it is of equal value with the inspected grade."

"You are aware that a good deal of it has been sold for export?"

Ans.—"Yes, and every report has been very satisfactory. Last year an exporter told me that it sold at a price that surprised him, and two years ago 2 hard, composed of 50 per cent straight and 50 per cent. dried wheat, gave far better satisfaction than another shipment composed of 75 per cent. straight wheat and 25 per cent. dried. And cases have been known where scoured hard wheat has sold at a higher price than straight 1 hard."

"Part of our grain has been stacked, and it is alleged that part of that has been wet in the stack. Would you advise the farmer to throw aside the wet and partially wet sheaves and thresh only what is in good condition?"

Ans.—"I would advise the separation, but would recommend the farmer to thresh the wet and damp wheat by themselves and market that grain separately and as soon as possible."

"Would you advise farmers who are threshing from the stook to separate the wet from that which is thoroughly dry?"

Ans.—"Yes, if they allow the damp wheat to mix with the dry wheat it will make the whole of it 'no grade.' If they separate it they will gain a few cents a bushel on the dry grain."

"What, in your judgment, is the best way of disposing of 'no grade' and wet wheat?"

Ans.—"I would advise him to sell it to his buyer, if he will take it, or ship it to the nearest drying plant, where it can be pro-

HOME OF JAMES DUNCAN, GLENBORO, MANITOBA.



perly taken care of. There is no use getting in a panic about the amount of damp wheat that may be caused by the present wet weather, for it requires a temperature of 60 degrees or over to cause the gluten of 'no grade' wheat to ferment. Our cold climate, therefore, is salvation to the farmer who is unfortunate enough to own any 'no grade' wheat, as he has until at least the 1st of March to dispose of it. The only thing necessary is to take care that it is not allowed to heat within the next six weeks."

"What loss does the farmer sustain by sending wheat to the drying plant?"

Ans.—"As the reduction in grade is already lost, he only loses the drying charges, which vary from 1½ to 3½ cents per bushel, according to the moisture in the wheat, and the freight on that amount of moisture. The drying plant does not take out any more moisture than the sun and wind would, if the grain was left to be dried in the sheaf."

"Supposing a farmer wants to ship grain to you to be dried, what course must he take?"

Ans.—"He ships the grain in carload lots, subject to his own or a banker's order, Ft. William. If, after inspection at Winnipeg, it proves to be 'no grade,' it is sent to Port Arthur for treatment. The inspection, weighing and outturns of the elevator are mailed direct to him from Port Arthur. He can then dispose of his wheat in any way he likes. It is not necessary for the farmer to forward any money to pay for freight or drying charges, as these become a lien on the grain, and are collected by the elevator from whoever finally ships the wheat. The owner of the grain should insure against fire, as the elevator does not take any risk of loss by fire."

"Then the farmer is perfectly secure in every way when sending his wheat to be dried in the elevator?"

Ans.—"Yes, for he holds the original shipping bill, and no grain is shipped out of the elevator unless this bill is sent to the elevator, properly endorsed; and if he is insured against fire, he is perfectly safe."

"What saving will a farmer effect by sending his 'no grade' wheat to the drying plant?"

Ans.—"That will depend upon the price the local buyer offers him for it. If he thinks he is not offered sufficient, then by shipping direct to the drying elevator, he can sell his dried grain in the open market. He thus carries any risk or loss of profit there may be himself, instead of the dealer doing so."

"What is the capacity and cost of your plant?"

Ans.—"The plant, when first erected, cost \$30,000, with a drying capacity of 500,000 bushels a month. Last year, in anticipation of a bad season, a further sum of \$20,000 was expended in enlarging it to 750,000 bushels a month, and should there be any further continuance of the present unfavorable weather the capacity will be increased to 1,500,000 bushels per month. Plans are being prepared for a large elevator at Port William, to which the present drying plant and cleaning machinery at Port Arthur will be removed, as the business has completely outgrown the limited capacity of the present elevator."

"I find The Nor-West Farmer a very valuable paper."—J. J. Barber, Wolsley, Assa.

The Management of Damaged Wheat.

We have the following letter from W. A. Doyle, Beulah. Mr. Doyle is always on the move and has the opportunity to see what is going on. His opinion as to the best way to handle wet stacks has ample confirmation in the past experience of other men. A stack partially wet is best let alone. There must be considerable assurance of settled weather before such stacks are taken to pieces. A better way is to wait till the thrasher is in sight and set out in stook all that is not fit to go through the mill. If threshed wet and saved from heating within the next month it will be safe to hold all such wheat for four months.

Mr. Doyle says: "A lot of farmers here, and no doubt elsewhere, have torn their stacks partly or wholly down and got caught with open stacks, with the result that they are now worse than if they had left them alone till the thrasher arrived. I have about 60 stacks, none of which have been touched, and they will stand so till I thresh and separate the damp sheaves from the dry then, and feed the damaged, if I have any. I did the same last year, had about 250 bushels damp and wet, but saved it all and when cleaned it was the best of seed and feed. I did not lose a bushel, and I think it a great mistake to tear the stacks to pieces, unless indeed it is certain that they are wet inside. One of my neighbors became utterly demoralized after those heavy rains and was about to pull his stacks to pieces, but was induced to let them alone. He has just threshed 3,500 bushels of No. 1 hard and about 40 bushels wet and damp, O. K. for seed. So I do not think the damage to well or fairly well built stacks is very great."

North-West Entomological Soc'y

The third annual meeting of this society has been called for Saturday, 9th November, 1901, at 3 p. m., at Puffer's hall, Lacombe, Alta. The business before the meeting will be:

1. To review the past work of the society.
2. To devise extension of the work.
3. To elect officers for 1902.

This meeting will, we understand, be of unusual interest, as prizes have been offered, two by Dr. James Fletcher, Dominion entomologist, and one by the society, for competition by the young folks of the Lacombe district for the best collections of insects of all orders, and the best of injurious and beneficial insects. As there are a considerable number of agricultural societies and farmers who are members of the N. W. Entomological society the initiation of a competition of this nature is a good step in the right direction. The Farmer would suggest to the worthy secretary, Percy B. Gregson, Waghorn, Alta., that the prizes offered by a society with such a big name should be open to all the young people of the territory covered by that name, instead of a limited district.



FARM HOME OF P. J. CANTLON, NEAR BOISSEVAIN, MANITOBA.

Deep or Shallow Plowing.

This question is always coming up and will continue to do so more and more. The object of plowing is to do something that will help to induce the land to bear profitable crops. Many other things have a share in helping or hindering the results we are striving for. Varying conditions must always be taken into account; the character of the different strata of the land we work on must be first looked to. If a few inches from the surface there is a layer of hard-pan, deep-plowing to break that solid layer may be a most desirable thing. It may not be wise to bring up more than an inch at a time of that stuff, and a subsoil plow that will only stir it without bringing it to the surface at all may be the best implement for the purpose. If the underlying stratum is gravelly it may be the part of true wisdom to keep going along with rather shallow plowing. There is some land of this sort that can hardly be kept under cultivation at all. It costs more to do so than the crop will ever be worth. Fortunately the bulk of our land is not of that sort.

The most of our land is good above and good below and with prudent management will continue fertile for a long time to come. The object of cultivating this class of land is to prepare it mechanically for the work expected from it. That is, it must be so worked that the plant roots can readily penetrate it in every direction, and the doing of this facilitates the chemical and other changes on which to a great extent the growth of the crop will depend. We have now decided reason for believing that the fertility of the soil depends a great deal on the work of the bacteria, which recent scientific investigation has shown to be so active in cultivated soils.

Frost does much to assist in preparing the soil for the operations of bacteria. To get the full benefit of the frost the soil must be moist and sufficiently drained to allow the ground to stay open after the frost has done its work.

These preliminaries understood, we come down now to actual practice. All experience shows that where root crops are wanted the land can hardly be stirred too deeply. This deep stirring may not be wanted every year even for roots, but one deep plowing before planting root crops is highly important, and the fall is the most suitable season to do it.

When it is wheat that is wanted as the staple crop, fall plowing, at least an inch deeper than usual, seems to have the support of general experience. This deep stirring when other conditions are right prepares the soil for the pulverizing action of the frost and that again furnishes the conditions in which the fertilizing action of the bacteria does its best work. But to get the most suitable preparation of the soil for the action of the fertilizing bacteria deep plowing is not necessary every year. The work of such a shrewd practical observer as William Rennie has shown that in spring and summer, if not in the fall, shallow and frequently repeated stirring during the growing period by some of the more recently designed cultivating appliances is of much greater value to a crop than deeper stirring, especially in the shape of an annual plowing.

It has, in fact, been pretty well established that deep plowing in spring just before a grain crop is sown does more to hinder than to help that crop. This, we think, may be due to the fact that the fertilizing bacteria require a certain amount of warmth to do their best work. If they themselves, or the humus they are to fertilize, be buried too deeply they do not get in their best work, or if they do, it is too late, thereby inducing excessive growth and delaying till too late the ripening process.

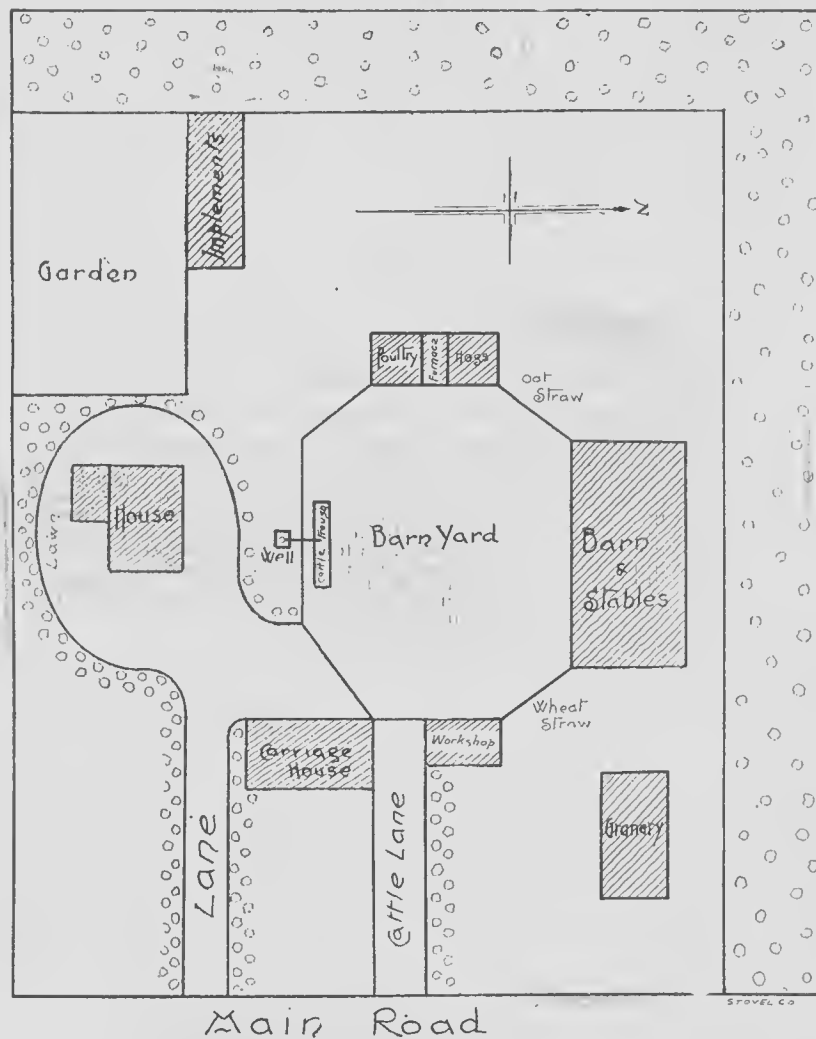
In our short seasons slow or late growth of a grain crop is fatal to profit, and therefore plowing and every other variety of cultivation should be done with an eye to quick germination, free growth and rapid maturity. In practice it has been found that second plowing of summer fallow by unduly loosening

the soil has a very great tendency to induce excessive and protracted growth. There may have been by the process of fallowing in our naturally rich soils an excessive amount of plant food liberated in the idle year, but when this preparation is accompanied by a good amount of compacting of the soil, the tendency to overgrowth of straw is greatly checked and the formation of grain is accelerated.

Accurate knowledge based on continuous and careful observation is one of the surest and safest guides to good work. Much may be learned from the study of different ways of plowing at different seasons and under different conditions as to moisture. Men of this habit of mind will get into the way of looking further than their own home work for the solution of such questions and will thus be able to formulate general principles for their future guidance. We can think of no better service to be done by our two experiment stations than to test the effects of different depths of plowing both in spring and fall. It may lead to clearer light than the best of us now have.

Layout of Farm Buildings.

In last issue of The Nor'-West Farmer we gave the plan of John Ching, Shadeland, Man., entered in competi-



A SCHOOL BOY'S PLAN FOR FARM BUILDINGS. BY PERCY FLORENCE, BALMORAL, MAN.

tion for the prize offered some time ago for the best sketch of the layout of farm buildings and grounds adjoining, suitable for a prairie half-section farm on which mixed farming was the principal line of work followed. In that issue we mentioned that the school boys of Balmoral had sent in a batch of plans. We are more than pleased with some of these plans and in the accompanying illustration give one of them. It is by Percy Florence, and, besides its intrinsic value, is interesting on account of being the work of a school boy. He says: "I have drawn as good a plan as I can." We have had our artist make a correct drawing of his plan without changing his idea in the least, and when thus put in shape it is most interesting to note his splendid layout. He has his build-

ings well separated, which is a good thing in case of fire, but we can't say that we like the idea of having the view of the house obstructed by the buildings to the north of the entrance drives.

Big Potatoes.

This is the season for monster potatoes. Just by way of contrast with our own crop may be given one of the biggest grown in Scotland so far as we have heard of. It was grown at Terregles, Dumfriesshire, was 6 inches long and weighed 1½ lbs. Against this we put, to start with an Early Rose tuber grown by Alex. McDonald, postmaster, Oakburn, 9½ inches long and weighing a fraction over 4 lbs. Next man is J. S. Telfer, Portage la Prairie, who, from a 3 lbs. sample of Early Rose obtained from Ottawa, got 215 lbs. A. Shaw, Portage, comes after with one potato at 2½ lbs. Dad Chapin, at Deloraine, had one 3 lbs. 6 oz.; Neil Stewart, of Deloraine, one at 3 lbs. 11 oz. One was shown at the fair weighing 4½ lbs. Sandy Gunn, Springfield, raised some monstrosities, one of which weighed 5 lbs. Harry Anderson, of China, had 114 lbs. from 3 lbs. seed of 20th Century potato grown in five hills. They are large and fine cookers. For growth above ground Selkirk leads with vines 10 feet long and four stalks

Humus in the Soil.

The meaning of the word humus is decayed vegetable matter. The agricultural chemist calls it organic matter. Soil is composed of two principal elements, mineral matter and humus. All have noticed how readily newly cleared forest ground, or new prairie ground responds to a crop. This is because the land is rich in humus. After a time, because of constant cropping, the humus is worn out of the soil and it becomes barren in a measure, and particularly it fails to grow a crop in a drouth. The farmer has gone along year after year taking off crops, and he has not resupplied the soil with decayed matter or humus. As a rule, farmers do not pay sufficient attention to this matter of supplying the humus to their soil. All crops must take their food in a liquid form. Plants drink; they do not eat. Therefore, all manure is worthless until it has been dissolved by moisture, and rendered soluble so the plants can take it up.

One very important function of humus is to act like a sponge and hold moisture. To illustrate: Take a tin pan and punch the bottom full of holes. Then fill it with coarse sand and turn on a quart of water. It will be seen that a large portion of the water runs readily through the sand and out of the pan. Turn out the sand and fill the pan with dry muck, which is decayed vegetable matter. Turn on a quart of water and but little of it will run through. As we said, the muck or humus holds the moisture like a sponge.

The Western Elevator Co. are building a new grain warehouse at Pasqua, Assa.

Part of the 1900 report of the Superintendent of the Ontario Farmers' Institutes is a volume of about 150 pages of small type full of interesting matter to farmers. It is just out.

The crops this year throughout the western part of wheat-growing Assiniboia are exceedingly good. About Indian Head and Qu'Appelle the probability seems to be that the wheat yield will average about 45 bushels to the acre.

J. H. Irwin, of Neepawa, was one of those who made a test of the Russian grain, speltz, and reports good results, the yield being about 40 bushels to the acre. Its use as food for stock remains to be thoroughly tested, but Mr. Irwin is of opinion it will prove good.

A curious specimen of barley was lately found on a farm near Duns, Scotland. Growing in a field of oats was a head of barley which had, in addition to the usual single ear, three smaller ears springing from near the base of the normal one. The lowest small ear emerged about half an inch from the bottom of the large one, the other two springing out a very little higher up. The main ear is 5 inches in length and the small ears about 1½ inches respectively. The head contains in all 72 barley pickles, probably the heaviest head of barley ever known.

"The Nor'-West Farmer is a farmer's paper that no farmer should be without. There are not many farmers in the country who could not get \$5.00 or more information out of The Nor'-West Farmer in one year."—Wm. Dixon, Hillesden, Assa.

CARRINGTON'S COMPOUND COPABA CAPSULES.

These have been compounded with the very greatest care and form the very best men's medicine known. They cure general debility, weakness and sexual losses, giving to the exhausted system new nerve force and manly powers. Six boxes for \$2.50, or

50c. Per Box.
THE F. O. MABER CO., Ltd., Winnipeg,
Western Canada's Exclusive Mail Order
House.

from one root each 7 feet 6 in. long. We want a few more examples, preferably of growth below ground.

A volunteer crop of oats on the Barnardo farm is reported to have made 48 bushels to the acre.

A report comes from Cypress River that on the night of October 5th a coal oil can had been emptied on the floor of one of the local elevators with a view to setting the place on fire. Fortunately the fire did not catch.

"I would not do without The Nor'-West Farmer for a good deal. I read it before anything else, as it is an up-to-date farmer's journal."—James Crezier, Summerherry, Assa.

Do You Know Mabber?

Not long ago a friend of ours returned from a visit into the country and he tells us that almost everywhere he went he was asked "Do you know Mabber?" "Who is Mabber?" Mabber is the champion of low prices and high qualities. By his great mail order system he brings to the consumer's home the best of goods at wholesale rates.

We can sell at less than other houses because our expenses are less. WE HANDLE MAIL ORDERS EXCLUSIVELY. We have consequently no expensive clerks, WHOSE SOLE DUTY IT IS TO COAX PEOPLE TO BUY goods; we run no credit accounts, so keep no bookkeepers; have no bad debts, and have less rent to pay than firms whose trade demands that their show rooms be in the main business thoroughfare of a city. These are some of the reasons why we can and do undersell all competition.

Our guarantee of satisfaction goes with every article sold. We don't want your business if we cannot satisfy you. Of course, in cases where there are several qualities of a given article it is not to be expected—and we are sure that you would not expect—that the lowest quality would be equal to the highest,—but we guarantee in every instance that the goods you receive at any set price will be equal to what you expect to receive. If not we'll take them back and refund your money in full.

CHILDREN'S FELT BOOTS.



5 and 6. \$1.00 per extra.

These are made of first class felt, with felt soles and heels and leather toe caps. They are not only warm and comfortable, but particularly strong and durable, and are bound to prove highly satisfactory. Sizes 3, 4, 5 and 6. By mail 12c.

GIRLS' FELT BOOTS.



Better Felt Boots have never been offered before at anything like the price. They are made of very good felt, with felt soles and heels and leather toe caps. They are not only warm and comfortable, but particularly strong and durable and are bound to prove highly satisfactory. Sizes 7, 8, 9 and 10. \$1.15 per pair. Postage 15c. extra.



BOYS' SKATING BOOTS.

These are beyond question exceedingly fine Hockey or Skating Boots, equal in every particular to what most houses sell for \$2.50 per pair. Tan or black, with special light sole and low flat heel. Sizes 1 to 5. \$1.75 per pair. By mail 25c. extra.

MEN'S SKATING BOOTS.

Laced to the toe, same styles as boys', illustrated above, light sole, low heel. Sizes 6 to 10. Tan, \$2.25 per pair. Black, \$2.00 per pair. Postage 30c. extra.



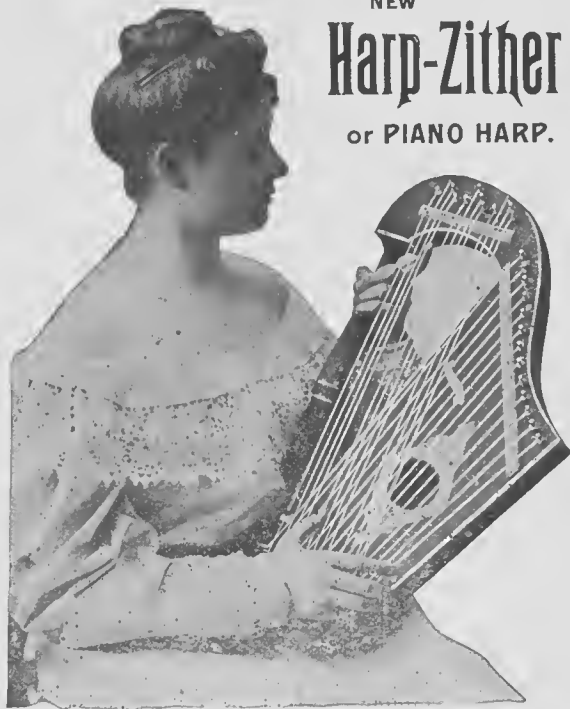
For \$3.65.

This is a genuine Stradivarius model Violin, made of old wood, curly maple flamed back and sides, with top of highly polished wood, especially selected for violins, edges inlaid with purfling, best quality ebony finish trimmings, a splendid toned instrument of exceptional power and sweetness. With each violin we include a genuine Brazil-wood Tourte model bow, one extra set of strings, one piece of resin, and one complete self instructor containing over one hundred selections, all carefully packed in a wooden shipping case. For \$1.50 extra we will send a splendid black violin case fully lined and with brass trimmings, lock and key.

C. O. D. if Preferred.—If you do not wish to remit all the cash with your order send us 50c as a guarantee of good faith and we shall be glad to forward Violin by express C.O.D. subject to examination. You can then examine it at your express office and if found perfectly satisfactory pay the express agent our special price, \$3.65, and the express charges. Order to-day.

NEW Harp-Zither or PIANO HARP.

\$4.90



This is a HARP THAT ANY ONE CAN PLAY. It has a grand Piano like TONE. It will produce music LOUDER THAN THE LARGE ITALIAN HARP, or its tones can be modulated to the soft, sweet tones of the German Zither. In addition to its wonderful tone quality, the Harp-Zither has a great many advantages over all other Zithers. It is the only Zither which may be played while holding vertically like the Harp, or it may be laid upon a table as is necessary with the ordinary Zither.

Observe the diagonally crossed strings—almost the same as the piano, the melody strings passing over the chord strings. By means of this improvement in construction the similarity in tone and volume of the piano is produced.

It is BEAUTIFUL IN DESIGN, POSSESSES A GRAND RESONANT TONE, HAS PERFECTION IN EVERY POINT, and is the easiest to learn to play of any musical instrument in existence. A CHILD CAN PLAY IT ALMOST AT SIGHT. The reason any one can play this instrument on first trial, even though the person may know absolutely nothing about music, or may not have an ear for music, is this: Each string is numbered as is each note in the music, so all one has to do to render the most difficult selections, is to strike the strings as indicated by the numbers; hence, any one able to read figures can learn to play.

The Harp-Zither is built on the lines of the large harp which sells at \$100.00 and upwards, and to the astonishment of all, the Harp-Zither has the louder tone of the two, in fact, its tone is similar to that of a piano.

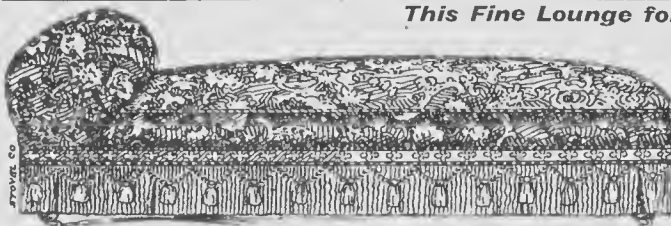
SATISFACTION GUARANTEED, or money refunded. To any one sending the full amount of price with order, we guarantee that if the Harp-Zither is unsatisfactory for any reason, we will refund all money paid for it (less return expressage), if we receive notice within five days after receipt and trial of instrument that it does not suit.

We make this offer knowing positively that none will be returned. The ease with which any one can learn to play, the grand music which any one can produce, makes it certain that no one will part with the Harp-Zither.

As a parlor ornament, the instrument, with its classical outlines, is unique. For the serenade, the musicale, or any class of entertainment, the Harp-Zither excels all other instruments of its class.

ITS DEEP SYMPATHETIC TONES PENETRATE EVEN THOSE INSENSIBLE TO THE CHARM OF MUSIC.

It is the best substitute for the piano ever invented. Ebonized piano finish, decorated, twenty-three strings, three chords, two picks, key, case, full instructions and a lot of figure music. Price, \$4.90.



This Fine Lounge for \$9.85

This luxurious Turkish Lounge is both neat and artistic, equal in every particular to what your dealer would sell to you for \$14.00 or \$15.00. The frame is solid and substantial and the workmanship first class. It has solid turned legs and fringe all around. We can supply it in three different colors of fine Derby Covering—old gold, dark green and maroon. Please state the shade preferred. Dark green is most popular and will be sent unless otherwise ordered.

We do not care to ship this Lounge unless freight charges are guaranteed. If you do not want to send the full amount, \$9.85, with your order, send us \$1.00 to show good faith, and we will ship the Lounge by freight, C. O. D., leaving you to pay the balance on arrival.

Mabber's Veterinary Preparations

Like yourself your horse is liable to sickness, and when so he requires proper medicine to restore him to health and strength. You can get these medicines from us. Mabber's Veterinary Preparations are compounded by skilful chemists,—men who know about horses and the sicknesses of horses—and when you buy them you can rest assured that no better can be obtained anywhere at any price.

Worm Powders

If your horse has worms "Mabber's Worm Powder" will cure him. The presence of worms is manifested in many ways. Sometimes a scurvy, yellow mucus around the margin of the anus; appetite sometimes ravenous and sometimes poor; emaciation; bowels sometimes loose and sometimes constipated; discharges often mixed with mucus; dry, coarse, staring coat, and often the horse has a pot-belly; breath often bad, and many times there is a dry, hacking cough; the horse has a general unthrifty look.

When First Troubled with Worms the animal will, be apparently well, and no great derangement of the system will be noticed. As soon as any symptoms of worms are noticed, you should give the animal immediate attention before it becomes serious. When the worms located in the rectum the horse will rub the tail against the side of his stall, etc.; when in the stomach the horse will turn up the upper lip, as if sick at the stomach, and will rub his lips against the wall or manger; will lick his manger and will persistently rub his tail or keep switching it around, which manifests great irritation.

Mabber's Worm Powders contain no poison or powerful drugs. They will expel the worms and correct the system so that worms cannot be produced. They will give tone to the digestive organs and greatly improve the general appearance of your horse.

Price 25c.; postage 8c extra.

Condition Powders.

Mabber's Condition Powders cure indigestion, hiccough, loss of appetite, constipation, swelled legs and skin diseases; regulates the kidneys, purifies the blood, prevents bloating in cattle and horses, and renders the coat soft and glossy. It's the best medicine of its kind on the market for horses, cattle, pigs and poultry.

Price 25c., postage 8c extra.

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WESTERN CANADA'S EXCLUSIVE MAIL ORDER HOUSE.

Fodder Corn at Brandon.

By S. A. Bedford, Superintendent of
Brandon Experimental Farm.

Fodder corn has given a full average yield this year, but none of the varieties were quite as early as last season.

North Dakota White and Pearce's Prolific, the two most desirable varieties for this part of the province, both reached the late milk or roasting stage on Sept. 1st. The fields of these two varieties grown for ensilage gave a very satisfactory yield. The corn was cut with a binder and allowed to wilt for several days before being put into the silos, and already the ensilage is giving off an agreeable malty odor, indicating that the ensilage will prove of good quality.

The seed was sown on May 29th in rows thirty inches apart, using about half a bushel of seed per acre. Crop was cut on Sept. 5th.

The yield is calculated from two rows each 66 feet long. The soil was a rich black loam which had been summer fallowed last year. The yields are as follows:—

Name of Variety.	Weight per acre of Green Corn. tons. lbs.
Thoroughbred White Flint...	23 860
Salzer's All Gold...	23 464
Yellow Long-eared...	21 1956
North Dakota White...	20 1448
Pearce's Prolific...	20 1184
Sanford...	20 920
Pride of the North...	20 656
Mammoth Eight-rowed Flint...	19 1732
Extra Early Huron Dent...	19 1600
Red Cob Ensilage...	19 1600
Longfellow...	19 1204
Salzer's Superior Fodder...	19 940
Mammoth Cuban...	19 280
Giant Prolific Ensilage...	18 1752
Selected Leaming...	18 1752
Champion White Pearl...	18 1356
White Cap Yellow Dent...	18 1224
Evergreen Sugar...	18 1092
King of the Earliest...	18 564
Cloud's Early Yellow...	18 300
Black Mexican...	18 168
North Dakota Yellow...	17 1904
Early Butler...	17 1376
Early Mastodon...	17 1112
Compton's Early...	17 980
Kendal's Early Giant...	17 452
Country Gentleman...	16 1660
Canada White Flint...	16 1660
Angel of Midnight...	15 1152
Mitchell's Extra Early...	14 512
Ruby Mexican...	11 1396
Salzer's Earliest Ripe...	11 1364
Extra Early Szekely...	11 704
Yellow Six Weeks...	11 176

Fall Fairs.

It is impossible within reasonable space to give any detailed account of the many local fairs held since our last issue was published. At a good many the turnout of stock was far short of the entries owing to bad roads and bad weather. When a fine day did come farmers who were pressed by work at home had to stay with it. In the case of old established shows it is frequently found that competition is narrowing down to the sure hands who have mastered the situation and make a point of bringing out all they can show.

SALT COATS.

One of the very best shows of the season was that held at Saltcoats on October 2nd. Everyone seemed to enter into the spirit of the thing and the entries were high in quality and very numerous. Jas. Bray judged the cattle, sheep and swine. The awards were as follows:—

Horses—Agricultural, 19 entries—Porter Bros. had three firsts. S. Taylor, T. McNutt and G. Turr had also firsts. General Purpose, 43 entries—G. R. Goodday, W. Moffat (thrice) and A. Thompson had firsts. Bred from mares under 14½ hands, 28 entries—T. McNutt had four firsts. G. Legg and A. Thompson also had firsts. Carriage and saddle horses, 36 entries—H. Lennon, T. McNutt, H. Holland, J. Leppington, C. Saunders, F. Kirkham, T. Cahill, H. McFadyen and S. Taylor had firsts.

Cattle—Shorthorns, 80 entries—G. & W. Bennie, Castleberry, Man., had several prizes, showing a capital herd. Other winners of first prizes were J. Leppington, H. Lennon, Bennies had sweepstakes hull and cow. Grades, 78 entries—Dairy—S. Taylor. Beef—T. C. Love had three firsts, R. Alhright five firsts and six seconds.

In sheep, with 23 entries, J. Elnarson was a leading prize winner.

In swine, of seven entries, G. Martin and M. Paulger had firsts.

In grain, 44 entries, T. Knott, J. W. Ward, F. Kirkham, G. Trewell and T. Norman had firsts.

Vegetables and roots were a good show with 136 entries.

In dairy produce firsts went to H. Leppington, C. Vickers, T. McNutt, J. W. Ward and F. Kirkham.

KILDONAN AND ST. PAUL'S.

This is one of the very live societies of the province and in the department of garden and field roots and vegetables it has no equal. The second day of the show was wet and very uncomfortable, which kept away the numerous city visitors who find this show a pleasant outing. For the same reason the stock show was confined very much to those within a short distance of the show ground.

In horses the turnout was only moderate. S. R. Henderson was the principal winner in light horses. R. B. Garvin and Andrew Garvin led in the agricultural classes.

The cattle display was excellent. Messrs. Lister and Ayeast brought in a large draft from their Shorthorn herds and divided the prizes. John Oughton's Holsteins made a capital showing and got all prizes. James Garvin had all in Ayrshires. There was a very good turnout of grades, H. O. Ayeast having a full turnout. D. McIvor, M. Harper and J. H. Gunn also had prizes.

In pure bred swine John Oughton had most prizes, M. Oughton and R. Inch also taking prizes.

The dairy exhibit was, as usual, very full, D. McIvor again getting most of the first prizes for butter.

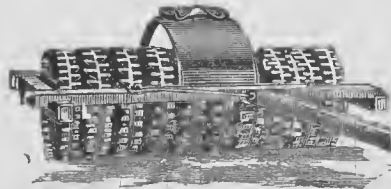
The display of grain was ample. The Red Fyfe and spelt of H. O. Ayeast were excellent, but oats not up to the mark in quality.

Field and garden roots were shown in great profusion and of the highest quality. Some of the best potatoes were secured for the government. A squash of mammoth proportions was shown by P. Johannessen. Farmers and gardeners showed in separate classes and their collective exhibits made a very fine display. Among the leading prize winners may be named Lay Bros., H. C. Whellams, W. A. Farmer, C. Midwinter. Lay Bros. led, but the others had several prizes.

The Indian Industrial School made a very interesting display. In writing its pupils heat all the other schools in the district. Some excellent specimens of wood carving and drawing and fancy work were also shown from this school. On the whole this show fully sustained the established reputation of the old river municipality.

Here is the Implement that You Want for your Light Soil.

Is used by Progressive Farmers everywhere.



THE MCCORMICK SOIL PULVERIZER AND COMPRESS FIELD ROLLER.

It crushes and grinds all clods, packs the soil without making a smooth, hard surface, hence it is not blown away with wind, or washed off with rain; no parts to wear or get out of repair. For particulars, address

The H.P. DEUSCHER CO., Hamilton, Ohio.

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We handle the widely-known McCormick Roller, the celebrated Plano Harvesting Machinery, Plows, Disc Harrows, Potato Diggers, etc. made by the Rock Island Plow Co., and the Grand Detour Plow Co., also Wagons, Cultivators, Feed Cutters and Grain Crushers.

Watson's Pneumatic Feed Elevator saves time and labor, and thus saves money.

THE BEST IS THE CHEAPEST.

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Scale, drop lever and
wheels, for this month.

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SUNSHINE" FURNACES

retain fire over night, but do not burn up the fuel—with a little shake and drafts turned on in the morning, a house is heated in short order with a "Sunshine."

Fire-pot is made in two sections, extra heavy, and with flanges on outside, which increases radiation and strength.

The "Sunshine" is made in three sizes, and burns coal, coke or wood, giving perfect satisfaction with either.

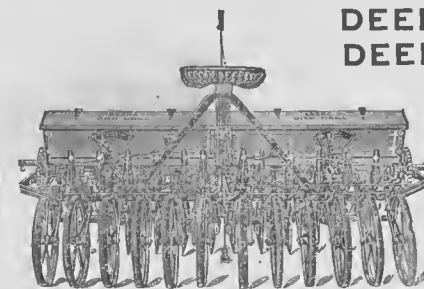
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Winnipeg.

SHIPPERS OF BUTTER AND EGGS.

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References; Any Bank or Wholesale House in Winnipeg. Correspondence solicited.

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How to Winter Bees in Manitoba

By Josiah Gately, Austin, Man.

To winter bees successfully in this country, they must have enough honey left in their hives in the fall to last until the middle of May next. Then between the 5th and 15th of November they should be placed in the cellar with the entrance to the hive open the full width. The hive should be set with the front an inch or more lower than the back. The covers are to be taken off and a chaff cushion laid on top of the frames, first putting two or three sticks about half an inch thick across the frames under the quilt, so as to give the bees a road from empty combs to full ones, without having to come to the bottom, where the air is colder. I make a practice of cleaning each bottom board some time in January, and find it a good thing to do.

Renovating and Mulching Lawns

A nice mossy coated lawn is the envy of every one and such a coat can be obtained if the necessary care is bestowed upon the lawn. A large measure of this success is attributable to the mulch used as a winter protection and also as a manure. Many a farm lawn could be made to look very much better if given a little care, and what Mr. Hunt, of Hamilton, Ont., has to say in the Canadian Horticulturist will be of interest to our readers:—

The too common practice of applying late in the autumn—or perhaps in early winter—a heavy coating of raw stable manure is productive of very little good to lawns, to say nothing of its unsightly appearance during a great part of the winter, when there is no snow to cover it from sight. Another objection to this kind of mulch is that it is often the means of introducing a crop of weeds on the lawn, from weed seeds and roots that have not been destroyed by a proper preparation of the material previous to its being used. Even as a fertilizer this mulch is of very little benefit, as owing to its unsightliness, objectionable odor, etc., its application of necessity has to be deferred until snow and hard frost appear. This, and the necessity of removing it early in the spring, gives it very little opportunity to convey any of its fertilizing properties to the lawn.

Oftentimes the mulch mentioned is applied with the idea of protecting, and preventing the finer grasses and clover from being winter-killed. A very slight mulch, of this kind will doubtless in many cases assist in this way—especially where the sod has been recently put down—but if the mulch is applied too heavily as is often done, its application is productive of more harm than good, as it forms the basis for a thick coating of ice and frozen snow that is not beneficial to the existence of many of the finer grasses and clover.

Imperfect subsoil or under-drainage is also in many cases the cause of clover and the finer lawn grasses being killed out on lawns in winter. If the under-drainage of the lawn is imperfect, no amount of mulching or top-dressings will be of any benefit, or produce a good close sod, until the lawn has been thoroughly under-drained.

A thin coating of well-rotted stable manure distributed evenly over the lawn in late autumn will be found beneficial as a fertilizer. If given a good raking down in early spring the greater part of this mulching will be retained, and so benefit the growth of the sod during the summer season.

The most effective and lasting mulch, however, for a lawn that is not in good condition, is a good rich earth-mulch. Equal quantities of any light friable soil, free from roots or weed seeds,

thoroughly mixed with some well-rotted stable manure, makes an ideal mulch for a lawn. This compost should be made in August—if a mulch is required for the lawn—and thrown into a heap and turned over once in every two or three weeks until October, when it can be spread on the lawn at any time after grass cutting has ceased. This turning over or mixing process should be done so as to place the compost that is in the centre of the heap as much as possible on the outside each time the compost is turned over. This will expose all of the compost to the light and air, and allow any weed seeds to germinate, and thus destroy them by successive turnings. All sticks, gravel or roots should be picked out when turning over the compost.

If this mulch is applied early in the autumn, and evenly distributed over the lawn by a thorough raking with an ordinary garden rake, it will not only act as a fertilizer but will also level up any uneven places caused by over-wear, or by the extraction of coarse weeds, etc. An earth mulch also furnishes a good surface soil for starting into growth any lawn grass or clover seeds that may be sown in early spring to thicken up and improve the sod.

A sufficient thickness of this mulch can be spread on the lawn early in autumn to almost cover the grass from view. The greater part of the mulch will have become absorbed and lost sight of by spring. Sufficient, however, will usually be left on the surface to encourage the growth of lawn grass and dwarf clover seeds, and for fertilization purposes, without in any way interfering with grass cutting early in the season.

The quantity of mulch required to be spread on must be determined by the size of the lawn and the condition the sod is in. If the sod is very broken or uneven it will require a much heavier mulching than if the grass is in fairly good condition.

Any places on the lawn that are almost bare of grass should be first loosened up an inch or two deep before the mulch is applied; or the mulch may be forked into the soil to that depth and good results attained by sowing lawn-grass seed on it in early spring.

A thin dressing of bone dust, wood ashes, or some of the commercial fertilizers sold for this purpose, are good stimulants for a lawn that is in a fairly good condition. These should be applied early in the spring. But where the grass on a lawn is thin and the surface uneven and broken, there is nothing better to renovate and improve it permanently than a good earth-mulch.

A well-kept lawn, even if it be only a few square yards in extent, adds very much to the beauty of its surroundings, but to attain the best possible results in this direction it requires, once in every two or three years, some encouragement in the shape of fertilizers or mulchings, beyond the ordinary routine care of watering and mowing given it during the summer. Lawns, like pasture fields, soon fail to give satisfactory results unless renewed or stimulated occasionally, a fact that is often lost sight of, and one that will often account for so many lawns becoming infested with coarse, unsightly weeds. On lawns where a close growth of grass and clover can be secured, the less room for and the fewer weeds will be found. A good rich mulching once in every two or three years is one of the main features necessary in the care of a lawn so as to have it in the best possible condition.

In the trial fruit grounds at the Brandon Experimental Farm there are over 1,000 plum seedlings, mostly of the following varieties: DeSoto, Hungarian, Cheney, Wolf and Voronesh. About 50 distinct types are of good quality. Dr. Saunders is very hopeful of yet being able to give the western people a good plum that can be grown all over the country.

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Most of the seeds of the Manitoba maple in many parts of the country this year are dead, and will be of no use for planting.

On an average 45 per cent. of the weight of green trees is made up by water, and about 250 gallons are evaporated in burning a cord of green wood.

The Farmer is in receipt of a box of home-grown plums and crab apples from H. L. Patmore, Brandon. The plums are of two varieties, the DeSoto and the Rockford. Both have a pleasant flavor, the latter being to our mind the best. Some samples of the DeSoto were nearly an inch and a half in diameter. The Rockford is smaller, about like the wild plum but without its acridness. The crab apples were the Transcendent and a hybrid variety, the Pride of Minneapolis. Both were well grown and would be greatly appreciated by any farmer who could grow them—and that day is not so far distant as many think.

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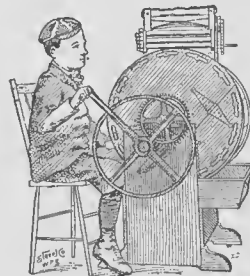
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AND

A. H. BAKER, V.S.,

Veterinary Editor "American Field;" Veterinary Surgeon Illinois Humane Society; Medalist of the Montreal Veterinary College; Member of the Montreal Veterinary Medical Association, &c., &c.

With important articles and contributions from the following Professors of the Ontario Agricultural College of Guelph, Ontario, Canada:

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Professor of Agriculture and Farm Superintendent. Professor of Veterinary Science.

H. H. DEAN, B.S.A.,

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Principal Montreal Veterinary College, and Chief Dominion Stock Inspector.

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G. E. DAY,

Prof. of Agriculture and Farm Supt., Ontario Agricultural College, Guelph.

Crystal City, Man., Sept. 18, 1901.

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THOS. GREENWAY,

Director Dominion Cattle Breeders' Association.

Greenwood, Ont., Sept. 21, 1901.

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Vice-President Dominion Cattle Breeders' Association.

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Prof. Dairy Husbandry, Ontario Agricultural College, Guelph.

[Prof. Dean is too modest to recommend specially that portion of the work referring to the Dairy Husbandry, as he is writing that portion himself.]

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Gentlemen.—The book is one that should be in the hands of every stock owner. I can heartily recommend it as the best work of the kind I have ever seen.

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Director, Cattle Breeders' Association.

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Respectfully yours,

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Yours very truly,

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(Judge Warburton.)

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Gentlemen.—There is a great deal of useful information in your "New Cyclopaedia of Live Stock and Complete Stock Doctor" on a great many subjects in connection with stock raising. I would recommend it to breeders of all kinds of stock.

Yours respectfully,

JOHN WATT.

St. Catharines, Ont., Sept. 13, 1901.

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Yours respectfully,

J. F. QUINN, Veterinary Surgeon.

Sine, Ont., Sept. 2, 1901.

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Yours sincerely,

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Respectfully yours,

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Yours truly,
C. BRIND, Veterinary Surgeon.
(Member of the Ontario Veterinary Association.)

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Gentlemen.—I have read enough of your "New Cyclopaedia of Live Stock and Complete Stock Doctor" to say it is the best book of its kind I have come across. It won't hurt the veterinary as well as the farmer to read it over.
Yours respectfully,
THOS. JOHNSTON, Veterinary Surgeon.

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Gentlemen.—Having examined your "New

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Yours truly,
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J. MASSIE.
(Veterinary Major of the South African Contingent.)

What Our Canvassing Agents Say.

The following are extracts from a few of our agents' letters. We give their names correctly, but for obvious reasons we do not give their addresses:—

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S. W. HALL.
"I took 52 good subscriptions last week, 41 of which were for leather."
JOHN A. DAVENPORT.
"I worked 5 1/2 days this week and sold 34 Stock Books—13 leather and 16 cloth. My list now numbers 243, and it still grows."
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J. J. HURLEY.
"The Stock Doctor is a success—what every farmer needs and wants. I have sold

3 copies to veterinary surgeons and all pronounce it the most complete work they have ever seen—safe in treatment and easy of comprehension."
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W. E. GAMBLE.
"I have sold 30 of your Stock Books in 11 days besides 40 of your other books. Have sold 5 Stock Books to men who had just received the other book."
L. C. GALER.
"In three days I have sold 17 Stock Books—14 cloth and 3 leather, and now have 64 good subscriptions."
REV. W. J. CRANK.
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W. P. DEWALT.
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R. GRIFFITH, SR.

Wheat Flour and Its Relation to Bread-Making.

By Robert Harcourt, Associate Professor of Chemistry, O.A.C., Guelph, Ont., in Ontario Farmers' Institute Report for 1900.

The common things about us often attract the least attention, although they teem with interest. From time immemorial bread has been the staff of life, yet it is surprising how little science has revealed to us about this important food which is the basis of human nutrition. Not only is it the most important, but at the same time it is the cheapest; for, measured by actual nutritive power, there is no other complete ration which in economy can compare with bread.

BREAD AS A COMPLETE RATION.

By this is meant a ration which in itself contains all the essential elements of nutrition in a proportion that will satisfy the wants of the human system. Bread contains proteids, or albuminoid matter, which may be viewed as the veg-

The protein, or flesh-forming substance, is the next largest constituent of flour. This is the most nutritious part of the grain, and pound for pound the proteids of one cereal have as high a nutritive value as another, yet the difference in the constituents of these proteids makes it possible to prepare a far better quality of bread from one of the cereals than from the others. Nearly 90 per cent. of the nitrogenous substance of wheat is composed of an insoluble form known as gluten, which is lacking in all the other cereals with the exception of rye. Many of us are familiar with gluten in the form of gum made from chewing wheat. The amount of nitrogenous substance in a grain is an indication of its food value, but it is the gluten content that determines its value for the production of flour of a good bread-making quality. Millers want a variety of wheat that contains a high percentage of gluten, because a better quality of flour can be made from it. Farmers, on the other hand, grow wheat for the yield in bushels, regardless of the amount of gluten it may contain. So long as the millers pay as much for one variety as for another so long will farm-

is the grade of flour known as the "patent." The richest part of the endosperm being hard, and closely attached to the tough bran coats, is, to a certain extent, lost or so mixed with small pieces of bran that it injures the color of the flour, thus furnishing what is known as the "bakers' grades." The flour obtained by still closer grinding of the bran forms the "low grade" flour of commerce. Generally speaking, the more bran particles there are in flour the lower it is graded. The outer coats of the wheat contain a much larger proportion of mineral matter, proteids, fats, and fibre than the inner portion or endosperm. It therefore follows that the more bran there is in the flour the richer it will be in these constituents, although at the same time it is lower in gluten. This difference in composition of the various grades of flour made from the same wheat is well illustrated in the following table which has been compiled from those of analyses in "Foods and Food Adulterations," by Dr. H. W. Wiley, of the United States Department of Agriculture.

COMPOSITION OF WHEAT AND THREE GRADES OF FLOUR MADE FROM IT.

	Moisture.	Proteids.	Gluten.		Ether extract or fat.	Crude fibre.	Ash.	Carbo-hydrates (starch)
			Wet	Dry				
Wheat	6.66	14.18			2.61	1.70	1.91	69.94
Patent	11.46	12.95	36.14	10.85	1.45	.18	.39	73.55
Bakers' grade	12.46	14.88	51.21	16.97	2.00	.33	.62	70.00
Low grade	12.01	17.95	10.01	4.26	3.86	.93	1.99	63.26

At first glance it might be said that the "low grade" flour is the best as it contains the most proteids, but while high in proteids it possesses a small amount of gluten, and the increased amount of fat, fibre and ash tend to make the flour darker in color. The gluten of the "patent" flour is of a better quality than that in the lower grades. It therefore makes a dough that rises better and retains a larger amount of water. A "straight" flour is usually obtained from custom mills where all the flour made from the wheat is left together.

THE YIELD OF FLOUR.

depends largely on the quality of wheat, the mill and the skill of the miller. Good authorities say that an average wheat under the best conditions will yield about 60 per cent. of high grade flour, about 8 per cent. of a good inferior article, and a small quantity of very low grade. Some millers claim to be able to turn out 75 per cent. of the weight of the wheat used as a marketable flour.

AN EXAMINATION OF A FLOUR

For commercial purposes should deal with three things, viz., strength, yield, and color. Flavor is so much affected by the fermentation used and by the methods of working that it can hardly be considered in estimating the commercial value of flour. The strength largely depends on the quantity and quality of the gluten; the yield of bread on the amount of water the flour is capable of absorbing; and the color on the amount of bran particles it contains, on the amount of germ that has escaped separation, and on the amount of smut on the wheat.

STRENGTH OF FLOUR.

It is difficult to get at what is really meant by strength in flour. The miller usually judges strength by mixing a definite weight of flour with a measured quantity of water, and comparing the consistency of the dough thus produced with that from a standard flour. The results can only be used for purposes of comparison. Bakers often judge of the strength of a flour by the amount of fermentation it will stand. They know that if two different flours are set with equal quantities of yeast and at the same temperature, one will come to what is spoken of as the "drop," or a time when the tenacious nature of the gluten is exhausted in less time than the other. Flours will, however, differ greatly in the rapidity of the fermentation, so that the one with the higher percentage of gluten may run its course of fermentation in the shorter time, and baker and miller not agree as to which is the stronger flour. The most reliable method of determining the strength is by actual baking tests, but these to be

at all accurate must be made by an experienced baker, who can judge when the different doughs have had their proper amount of fermentation, and are ready for the next step in the process. By this method the actual yield of bread is obtained and the strength of the flour thus determined.

THE COLOR,

Of course, does not affect strength of flour or yield of bread, yet in the great majority of cases more value is placed on color than on anything else.

THE QUANTITY OF GLUTEN

In a flour is a good indication of its strength, yet the character of the gluten varies greatly in different varieties of wheat, and in wheat grown in different localities. The gluten of the hard spring wheats appears to have the proper properties for making a good light loaf of bread, but it cannot be denied that good bread is made from the soft winter wheats.

The ideal flour for bread-making is one that contains a sufficient quantity of gluten to produce a spongy loaf without retaining an excessive amount of moisture. Bakers prefer a flour with a high percentage of tenacious gluten, because owing to its absorptive power, the bread retains a large amount of water. With a flour rich in gluten of good quality it is possible to get a good palatable loaf, that will contain as high as 40 per cent. of water, without any evidence of an excess; while another flour poor in gluten or of a poor quality, may make a sticky doughy bread, and contain only 35 per cent. of moisture.

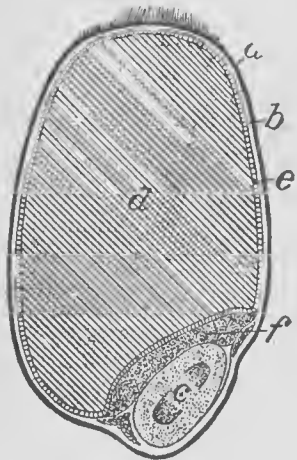


Fig. 1.—Section of grain of wheat: a, skins and testa; b, membrane; c, embryo; d, endosperm; e, cereal or aleurone layer; f, scutellum.

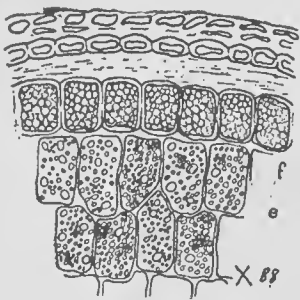


Fig. 3.—Highly magnified section of portion of grain of wheat, as at X in Fig. 2; a, b and c, outer coats or bran of the grain; d, aleurone layer; e and f, floury interior starch cells of the grain.



Fig. 2.—Transverse section of grain of wheat.

etabolic analogy of the lean or muscle of meat, and starch, which is the vegetable counterpart of the fat of the meat. Besides these, bread contains small quantities of fat, cellulose and mineral matter, the latter of which is essential for the formation of bone. In speaking of bread as a complete ration it is not meant to imply that no other food is necessary. In man not only are the tissues to be nourished and replenished, but the taste must be pleased.

MATERIAL FOR MAKING BREAD

may be supplied from many sources. Wheat, rye, barley, oats, corn, buckwheat and potatoes have all been used for this purpose. In fact nearly every plant furnishing a product rich in starch has been utilized for making bread. So far as has been determined, the starches of cereal grains are chemically identical; consequently, there is nothing, from a chemical standpoint, in this the largest constituent of flour, to make one grain superior to another for bread making.

ers grow the varieties that give the best yields.

MILLING.

The wheat grain is essentially an embryo, composed of the germ, together with a supply of food, and the endosperm, or floury matter, surrounded by several membranes or coats. In preparing the wheat for grinding, the outer coats are removed by friction; those lying immediately under these form the greater part of the bran. The endosperm, which consists of large cells containing the granules of starch and the constituents of gluten, is by far the most important portion of the grain, and it is the object of all milling processes to separate this from the rest of the wheat and grind it to flour. The exterior of the endosperm is much harder than its interior, and contains more gluten. In all methods of gradual reduction the centre is reduced first, and being very starchy makes flour a little low in gluten, but very white. This is

EXPERIMENTS.

The strength of the flour made from a number of our fall and spring varieties of wheat was clearly brought out by R. W. Goble, one of our present graduating class, who worked out an interesting thesis on this subject. The following is an extract from one of Mr. Goble's tables:—

YIELD OF BREAD FROM THREE VARIETIES OF WHEAT.

Name of Wheat from which the Flour was made.	Gluten		Pounds of Bread made from 100 lbs. of Flour.
	Wet	Dry	
Manitoba, straight flour.....	30.17	10.86	154.9
Wild Goose, straight flour.....	26.53	10.00	151.9
Michigan Amber, straight flour.....	18.95	6.48	148.5

The bread from the Manitoba flour had a good color, and made a large loaf very fine in texture. That from the Wild Goose flour made almost equally as large a loaf, a little more open in the texture, but very dark. Because of its dark color the flour from the Wild Goose wheat cannot be used by bakers for bread-making, yet there are few, if any, of our Ontario grown wheats that will make as strong a flour. The bread from the Michigan Amber, a fall variety of wheat, which was a little dark in color, did not rise as well, and dried out more quickly than the others. Fig. 4 shows a single loaf of each variety.

QUALITY OF GLUTEN.

A number of attempts have been made to determine what makes quality in gluten. With experience a fair judgment of the quality can be formed from the

ity of gluten has considerable to do with the yield of bread, for although the weight decreases with the grade, the gluten in No. 2 grade is much higher.

The most exhaustive and reliable work on the gluten of wheat was done by T. B. Osborne and C. G. Voorhees, of the Connecticut Experiment Station. According to these authorities, gluten is

composed of two substances, gliadin and glutenin. When flour is moistened and worked into a dough these two constituents unite mechanically, forming the gluten. Gluten as such does not exist in the dry flour, but is formed after the

YIELD OF BREAD FROM THREE GRADES OF FLOUR.

Grade	Gluten		Pounds of Bread from 100 lbs. of Flour.
	Wet	Dry	
No. 1.....	25.7	8.2	142.2
No. 2.....	24.7	8.9	136.6
No. 3.....	22.9	8.1	132.2

water is added. The gliadin has been called plant gelatine, and when separated it is very much like animal glue. It is this substance which gives the sticky adhesive property to the dough

which had been treated with alcohol to remove the gliadin.

Glutenin, the other constituent of gluten, serves as a nucleus to which the gliadin adheres, and prevents the dough from becoming soft and sticky. The in-

dications are that quality in gluten depends, in a measure, on the presence of these two constituents in certain proportions. Prof. Snyder, Chemist of the Minnesota Experiment Station, finds, as a result of his work, that in good patent flour made from spring wheat, the gluten is made up of 60 per cent. gliadin and 40 per cent. glutenin, and that the gliadin decreases with the grade until in the low grade it is not over 25 per cent. of the gluten. This will no doubt partially account for the poor quality of bread got from low grade flour.

OBJECT OF BAKING.

"The miller's art is directed to the task of separating that part of the wheat most suitable for human food from the bran and other substances whose presence is deemed undesirable. The flour thus produced requires to be submitted to some cooking operation, or some process which will separate the fine particles of flour that the digestive fluids of the body may act upon it, before it is fit for ordinary consumption. Given the flour, it is the baker's object to so cook it that the result may be an article

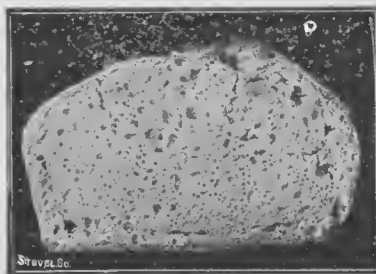


Fig. 7.—Loaf of bread made from normal flour from which the greater part of the gliadin had been removed. Note the big cracks up through the loaf from which the gases escaped without causing the dough to rise.

agreeable to the taste, nutritious and easy of digestion. It is generally admitted that these ends are best accomplished by mixing a flour with water, so as to make a dough, which dough is charged in some way with a gas to distend it and then baked. The result is a loaf the interior of which has a delicate spongy structure, which causes good bread to be, of all wheat foods, the one most easily digested when eaten. This charging gas is most commonly effected by fermentation, but other methods are also used. Fermentation has one great advantage over other bread-making processes in that it not only produces gas but also effects other important changes in certain of the constituents of the flour."

OBJECT OF USING YEAST.

There are several forms of fermentation. The changing of cider into vinegar is one, the souring of milk is another. The development of the rancid smell in butter is another, and the action of yeast in the making of beer is another. The latter form of fermentation is similar to the one we have in bread-making and is known as alcoholic fermentation. The yeast, which is really a mass of one-celled tiny plants, keeps reproducing itself at a proper temperature, 77 deg. to 95 deg. F., and in this growth feeds upon the sugar of the flour, converting it into alcohol and carbon di-oxide acid. The theories as to the exact physiological processes involved have been many, and are probably not yet wholly understood. Sufficient for the present article is to say that the rising of bread by means of yeast is not a simple process, but involves the action of a considerable number of organisms; and because of the very complexity of

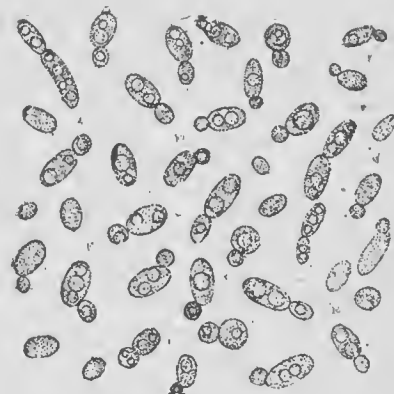


Fig. 8.—Yeast plant highly magnified, showing the growth by budding.

its action, yeast may be the cause of more trouble and annoyance than bad flour or even poor workmanship. The flavor of the bread is influenced more by the yeast used than by any other one thing. It must not be forgotten that yeast is a living organism, and as such grows in the dough; therefore, if poor yeast is used poor bread will be the result.

"Several methods have been devised for effecting an evolution of gas without recourse to fermentation. None of these methods, however, produce as digestible or palatable a loaf as where ferments of some kind are used, nor will the bread retain the moisture as well."

CHANGES IN DIGESTIBILITY EFFECTED BY BAKING.

The action of the various ferments is stopped by the heat of the baking, but the heat again causes a great number of changes. Very little is on record as to the temperature attained in the oven during baking. William Jago, F. I. C., F. C. S., in his book on "The Science and Art of Bread-making," says that the temperature of the oven should be from 450 deg. to 500 deg. F. Probably the ordinary temperature of the oven is somewhat over 400 deg. F. The exterior of the loaf is fully exposed to this degree of heat, but the interior, owing to the large amount of moisture present, can scarcely be heated beyond the boiling point of water. Therefore, in different parts of the loaf the starch is exposed in a moist condition to a temperature ranging from 212 deg. to 480 deg. F. Under these conditions, particularly at the higher temperature, great changes would be produced in the starch. When suspended in boiling water all varieties of starch are con-



Fig. 4.—Loaves of bread made from equal weights of "straight" flour from 1, Manitoba wheat; 2, Wild Goose wheat; 3, Michigan Amber.

feel and appearance of the gluten when wet. Some are soft, sticky, and have but little or no toughness, while others are highly elastic, firm and springy to the touch. These latter are special qualities which render flour of value for bread-making purposes. To illustrate the quality of gluten, its percentage in three grades of flour made from the same mixture of wheats was determined, and some of the flour baked, results of which are given in the table below. Fig. 5 shows the bread from 9 pounds of each grade.

The gluten of No. 1 grade was firm and elastic. Nos. 2 and 3 were much softer and more sticky, especially the latter. It is very evident that the qual-

ity of gluten has considerable to do with the yield of bread, for although the weight decreases with the grade, the gluten in No. 2 grade is much higher.

The gases formed through the action of yeast, in attempting to force their way out through the dough, come in contact with this elastic substance, which spreads out and retains the gas in little bubbles, thus causing it to rise. The walls of these bubbles retain their form when the bread is baked, giving the loaf its light, porous appearance. If this constituent be removed from the flour the gases formed by fermentation escape from the dough, and leave the bread solid. Figures 6 and 7 show the difference between a loaf of bread made from normal flour, and one from flour

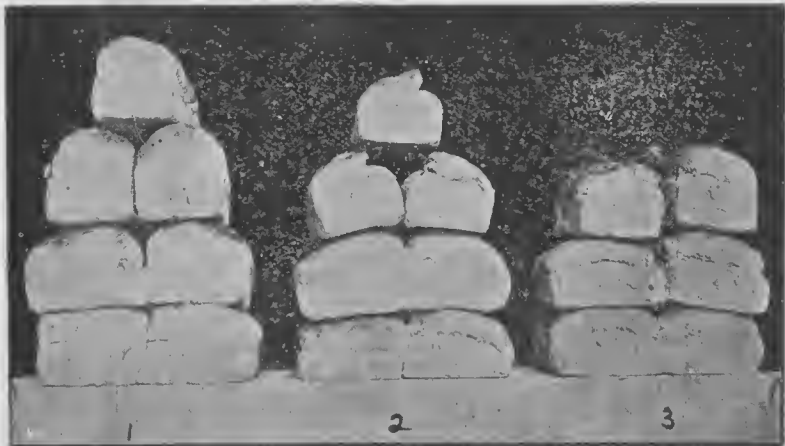


Fig. 5.—Showing bread from (1) a patent; (2) a middle grade, and (3) a low grade of flour. 9 lbs. of flour were used in each case.

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verted into soluble forms. The action becomes less marked when the starch is nearly moist, and requires a temperature of fully 400 deg. F. to change it when dry. It has been demonstrated that not more than 10 per cent. of the total starch originally present is changed in the process of baking. Undoubtedly this change is produced in those parts of the loaf most exposed to the full heat of the oven, and not in the interior of the loaf. This variation in temperature produces the difference between the crust and the crumb of the ordinary bread. The high temperature on the exterior is continually converting starch into dextrin, a gummy substance allied to the sugars, and to some extent into caramel, a sugar. In the lightly baked loaf, with a uniform pale colored crust, the gummy character of the dextrin coating is seen. The harder the loaf is baked the darker the color through the changing of this dextrin into caramel. Many bakers moisten the top of the loaf with water, or water containing a little sugar to develop more caramel, and to give it a darker color. Both dextrin and caramel are soluble in water and, therefore, readily digested. In the centre of the loaf, practically no changes have taken place beyond those caused by the natural ferments of the flour and yeast. This explains why the crust of bread and toast is sweeter than the soft white interior, and also why it is so much easier digested. The fermentation and heat have a beneficial effect on the digestibility of the proteids of the flour, probably changing them to some extent into peptones, a soluble form. These changes are, however, not at all well understood.

DIGESTIBILITY OF DIFFERENT KINDS OF BREAD.

Reference to the table of composition of different grades of flour shows that the "patent" flour contains less of all the food constituents, with the single exception of starch, than the lower grades. But the mere chemical composition of any material used as a food does not indicate its true nutritive value, for it is only that part which is digested that can in any way act as a nutrient. Bran contains considerable cellulose, a very indigestible substance. Not only is the cellulose very indigestible itself, but owing to its thick coatings around the cells in the bran layers, it prevents other constituents from being digested. In addition to this, cellulose exerts mechanically an irritant action upon the intestines which with some may have an injurious effect, but with others may be decidedly beneficial.

Too much importance should not be attached to the extra amount of ash, or mineral matter, in the outer coats of the wheat. Fine flour also contains these, and possibly in a far more available form. Of this, however, we have no definite information. There is little doubt that the lightness or porosity of the bread has a great influence on its digestibility. Heavy, badly-raised bread is very indigestible.

William Jago, the greatest English authority on the subject of bread-making, recently gave the result of his investigation on the digestibility of bread. In his work he compared the finest white bread obtainable with the bread made from the old stone process flour, and with entire wheat flour, and gives his results as follows: "It is a well-known fact that the public demand white bread, and that in consequence of this the efforts of both millers and bakers have been devoted to its production. In these experiments bakers' best white bread has been compared with bread from the darker flours, and with that from whole wheat. It is gratifying to observe that, not only from the point of view of composition, but also from the standpoint of nutritive value and actual digestibility, white bread more than holds its own above all others."

Lawes and Gilbert, of the Rothamsted Institution, England, in an article on "Bread Reform," thus sum up the comparative values of different kinds of bread: "All experience tends to show that the state of division, as well as the chemical composition of our food, must

be considered; in other words, that its digestibility and aptitude for assimilation are not less important qualities than its ultimate composition. But to suppose that whole wheat meal as ordinarily prepared is, as has been generally assumed, weight for weight more nutritive than ordinary bread flour, is an utter fallacy, founded on theoretical text-book dicta, not only entirely unsupported by experience but inconsistent with it."

Some time ago a series of tests were made by a committee of London physicians of St. Bartholomew's Hospital London, to determine, if possible, the relative nutriment and digestibility of white and brown bread. From these tests they came to the following conclusions:—

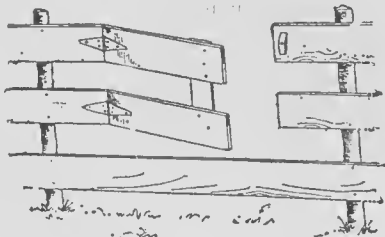
1. White bread is, weight for weight, more nutritious than brown.
2. In case of people with irritable intestines white bread is preferable to brown.
3. In case of people with sluggish intestines brown bread is preferable to white.
4. In cases where the proportion of mineral ingredients, and especially lime salts, in other articles of food or drink is insufficient, brown bread is preferable to white.
5. If the dietary is insufficient in fat, or if the patient is unable to readily digest fat in other forms, brown bread may possibly be preferable to white.

Recent investigations conducted at the Maine Experiment Station place the nutritive value of white bread, graham bread and entire wheat bread in the order mentioned.

The commonly accepted theory that the fine white bread is not so nutritious as the brown bread is unwarranted, because it is contrary to the most recent and able investigations.

Small Fence Gate.

The accompanying illustration given by an exchange shows how a convenient gate can be made in a fence that is not crossed so frequently as to need a full-sized gate. In making this half gate, saw through the boards first, nail on



hinges, then the cross piece, after which saw through the boards and put on the button.

The annual meeting of the Brandon Fair Association was held on Sept. 23. It was reported that 120 shares had been sold since last directors' meeting and measures will be taken to induce others to take up shares. The city is pretty heavily loaded otherwise, but the council would be glad to give all the assistance they can. Mr. McKenzie wants revision of the prize list. Mr. Cater thinks too much money is spent on racing and that seats should be provided for all that pay for admission to the grand stand. The following is the list of directors for the ensuing year: W. Ferguson, president; A. McPhail, vice-president; R. E. A. Leach, second vice-president; directors, W. Anderson, S. A. Bedford, J. P. Brisbin, A. F. Campbell, G. R. Coldwell, J. W. Fleming, J. Hanburv, T. E. Kelly, W. J. Lindsay, R. M. Matheson, P. Payne, H. L. Patmore.

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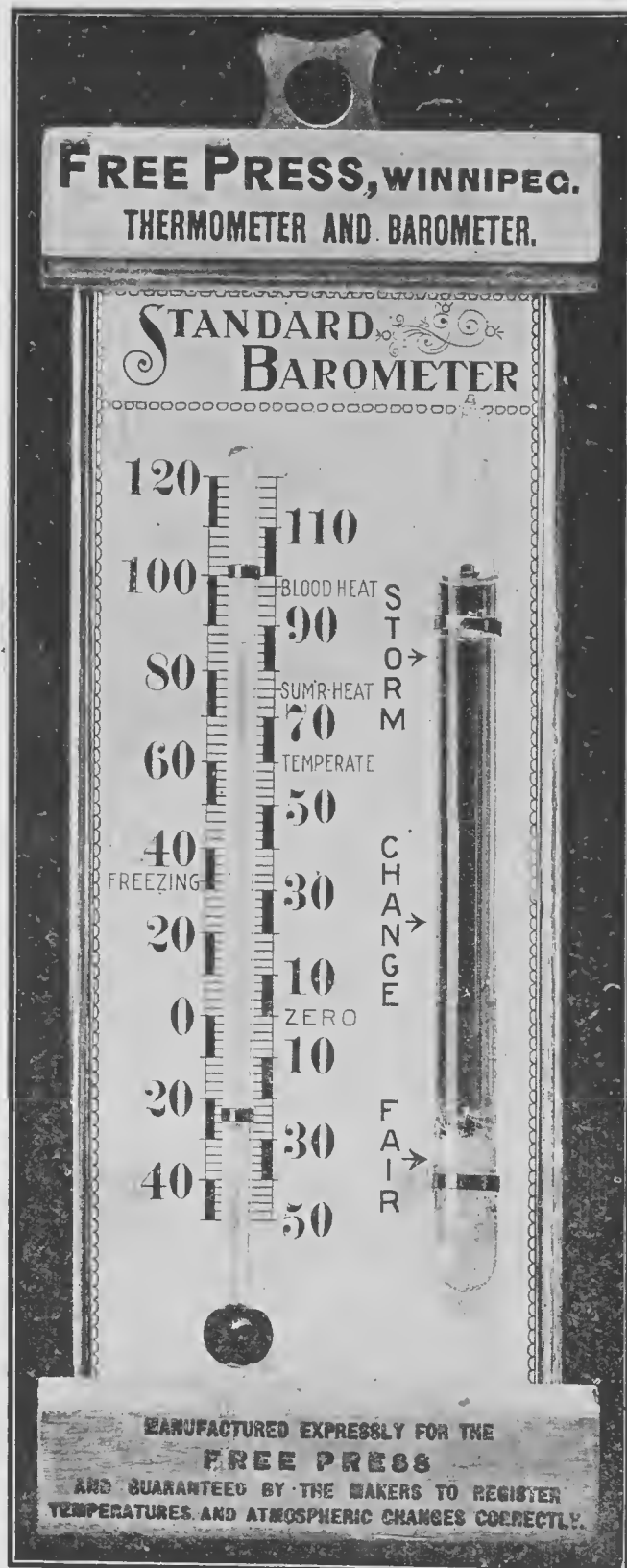
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Hilary's Six Little Pigs.

Hilary's pigs were "poor, common trash," as they say in the South, and were little better than the semi-wild "razor-backs" which roam at will through the pine woods and low swamps of Florida. But they had been carefully reared by the boy, who, among other tricks, had taught them to respond to his calls.

"Piggy! Piggy!" was not an attractive word from one point of view, but it always acted like magic upon the six little "razor-backs." The reason for this was that Hilary always rewarded them with some toothsome food when they responded promptly.

Hilary expected to make enough from the litter to start himself on the road to a fortune by the next year, when he intended to purchase fruit trees and begin his orange grove. His father had promised him the land, and had given him the pigs to raise.

The growth and development of the animals consequently formed a matter of daily importance to the boy. He watched them, played with them, and admired them until they were more like pets than practical farm animals to fill somebody's pork barrel later.

There were three white pigs, two mottled brown and white, and one black. The latter was always the scamp of the litter, and if any mischief was brewing, Hilary watched the black pig and waited for developments. He knew that if he was held under control, the others could be trusted.

But the blood of their wild ancestors showed itself more or less in all of the pigs as they grew older, and they made Hilary work for the money he intended to reap from their dead carcasses. Such simple things as breaking into the corn-field and destroying the stalks, or running away and hiding for days in the swamp, were scarcely worth chronicling. These accidents Hilary expected, and he took them as a matter of course.

But when one day six pigs walked up to the house and grunted dismally, and Hilary looked out and saw that every one was painted a bright green, his heart misgave him. For a moment he was so overcome by the sight that he laughed outright, exclaiming aloud:—

"Look at the green pigs! Where did they find all that paint?"

"That isn't paint," said his father, in a moment. "They've been at that Paris green I left in the potato field."

Then looking seriously at Hilary, he added: "I'm afraid that's the last of your pigs, Hilary. They must have taken enough inside to poison them."

Hilary said nothing, but believed as his father did. Nevertheless, he held them under the pump and deluged them with water until some of the green was washed off. The pigs liked this less than the dose of Paris green, and squealed continually during the process.

Instead of dying, the whole litter seemed to thrive on the Paris green, and by the time the last vestiges of the poison had worn off they were fatter and heavier than ever. For a few days they were quiet and kept out of mischief. Then, led by their little black companion, they resorted to other mischievous tricks and escapades, which brought down anger upon their heads.

Late one evening queer noises sounded on the cellar stairs, followed by a rumbling sound as if barrels were being rolled down the steps. At first thoughts of ghosts and burglars alarmed Hilary and his parents, and they started for the cellar with a lantern and gun; but before the door was open somebody said:—

"I'll bet it's Hilary's pigs up to more mischief."

This proved true, for when they investigated they found six porkers in the

cellar busily engaged in devouring a load of cabbages that had been stored there the day before. How the animals had broken loose from their pen, shoved open the cellar door, and tumbled down the steps, are all problems that are not easy to solve. They were in the cellar, and it took two hours to catch them and carry them, one by one, to the surface of the earth again, all squealing until the nearest neighbor came running to the rescue.

"Thought you were having a midnight pig-sticking," he said, when matters were explained. "If I were you, I'd sell those pigs right away."

"Who'd buy them?" asked Hilary.

"Nobody, I guess, unless he wanted 'em for a circus."

They were too small to kill, and they had eaten so much that something had to be done with them to recover the money already expended in raising them.

"It isn't only what they have eaten," said Hilary ruefully, a few weeks after this, "but it's what they have damaged. I guess if I paid you for all the injury they have done, I'd be out of pocket now."

"It was well that I didn't put that in the bargain," replied his father with an amused smile. "How much damage do you suppose they have caused?"

"I can tell you," responded the boy, taking a paper from his pocket. "Here it is. I've kept account of it all."

He pushed the paper before his father, on which was plainly written:—

June 10—Damage to corn field and fence	\$1.50
12—Damage to barn by rooting under the foundation	2.00
15—Destruction of 10 gallons of Paris green	2.50
20—For destroying 100 cabbages	2.00
For sundries, torn trousers, broken fences, shoe leather, etc.	5.00
Total	\$13.00

"I think that will cover most of the damages," added Hilary, "and at that rate they are a losing venture. I am already in debt to you."

"Then, you propose to turn them over to me?"

"Yes, if you will take them."

"But if I don't want them, what then?"

"We shall have to sell them or kill them."

There was silence, and then Hilary's father said:—

"We won't kill them now, or give them away; that would be poor business policy. Besides, it wouldn't be just to the pigs. We must let them have every opportunity to redeem themselves. We must give them another chance."

"What do you propose to do?" asked Hilary, interested in the new plan, but not sure of what his father meant.

"We'll turn them over to nature. Their ancestors were wild razor-backs; and it is evident the wild blood is in them, and that we can't civilize them. We'll brand them with some mark, and turn them loose in the swamp, where they can forage for themselves. If they live, we will round them up next winter and kill them for market."

"They will hardly seem like my pigs," remarked Hilary, a little ruefully, remembering the many good times he had had with the pigs when they were young. "If they were not so bad, I'd try them again on the farm."

He was half inclined to give the animals another trial; but early next morning he was startled by a noise near the barn. Hurrying out, he was greeted by a chorus of wild squeals. His pigs were in trouble again.

All except the black leader were covered with half-slaked lime, which had poured over them from an overturned tub, where his father had put it in the morning to prepare for white-washing the cellar. The little black leader had escaped harm, but the others were covered with the burning stuff. For hours they squealed and grunted around, un-

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til every hair was burnt off their bodies. "That settles it," said Hilary to himself.

On the following day, the pigs were branded with the letter H, and then they were conducted to the swamp and banished forever. They were so fond of this swamp that there was little danger of their ever returning voluntarily to the farm.

Although banished from the farm, and deprived of the corn and other delicate food that had been fed to them in the past, the pigs seemed perfectly contented, wallowing in the muck and dirt, and eating the wild plants, acorns and roots. Hilary went down to the swamp nearly every day to watch them, occasionally carrying corn for them to eat. Not once did they attempt to return to the forbidden land—not even to play some prank upon their owner.

A month after their banishment, Hilary was in the swamp cutting logs to make box-staves with, when he met with a queer experience. He had crossed a wet, marshy place, near a lagoon, when suddenly he heard an ominous hissing all around him. That warning was well known to him, and he stood perfectly still.

The Florida diamond-back rattlesnake is a dangerous creature to anger, and when he announces his presence by a

rattle, it is safer to stand perfectly still until the creature can be located. In a few moments Hilary caught sight of the rattler a dozen feet in front of him, with head erect and body coiled ready for a spring.

The boy would have backed cautiously away, but behind him he had heard another rattle. He knew that the mate of the big fellow was somewhere near him in the rear, and he was almost paralyzed with fear.

For nearly five minutes he stood, facing the snake, and straining his ears to catch the rattle behind him. It was a fearful position, and any sudden movement on his part probably meant death. He could almost hear his heart beat, so great was his excitement.

Then suddenly, to relieve the strain, there was a crash in the bushes in front, and a black head protruded, followed by several white ones. Then came a series of grunts. Hilary recognized his six pigs, now grown fat and strong; and they apparently knew him.

For a moment the boy's attention was diverted from the snakes to the pigs; then he opened his mouth, and called:

The six porkers had not forgotten the rewards that always followed this call, and with almost a simultaneous bound they dashed through the bushes toward the boy. They came onward like a

whirlwind, startling the snakes so that they turned around to face this unknown danger. As the pigs dashed past them, the rattlers struck out at the charging enemy, but instantly realized their mistake, and tried to slink away.

With a grunt of satisfaction, the black porker caught sight of the rattlers, and then dashed at them, followed by the whole litter. It was in vain that the snakes squirmed and struck at their new enemies. With sharp hoofs, the pigs trampled them to pieces, and so mutilated their bodies that they were hardly recognizable.

When they were through, Hilary was ready to fall upon his banished pigs and pet them; but they were averse to petting, and stood their distance. Nevertheless, he promised them the biggest dinner of choice corn and cabbages the next day that he could collect.

That night he said to his father: "I guess we can wipe out the damages in that bill. The pigs were worth more than thirteen dollars to me to-day."

"Yes, and a hundred times thirteen," replied his father, with a faint indication of moisture in his eyes.

And so Hilary's pigs were considered a good investment, in spite of mischievous tricks and pranks.

Note.—Florida's "razor-back" hogs are immune to the rattlesnake's poison,

and are their deadliest enemies in the swamps.—George Ethelbert Walsh, in Country Gentleman.

"There is no music in a rest, but there is the making of music in it." In our whole life melody, the music is broken off here and there by "rests," and we foolishly think we have come to the end of time. God sends a time of forced leisure—sickness, disappointed plans, frustrated efforts—and makes a sudden pause in the choral hymn of our lives, and we lament that our voices must be silent, and our part missing in the music which ever goes up to the ear of the Creator. How does the musician read the rest? See him heat time with unvarying count and catch up the next note true and steady, as if no breaking place had come in between.

Not without design does God write the music of our lives. Be it ours to learn the time, and not be dismayed at the "rests." They are not to be hurried over, nor to be omitted, nor to destroy the melody, nor to change the keynote. If we look up, God himself will heat the time for us. With the eye on him we shall strike the next note full and clear. If we say sadly to ourselves: "There is no music in a rest," let us not forget "there is the making of music in it." The making of music is often a slow and painful process in life. How patiently God works to teach us! How long he waits for us to learn the lesson!—John Ruskin.

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The Stairway that Led to Success.

By Frederick E. Burnham.

There are few things in life more appalling than the facility with which young men and young women of splendid capabilities resign themselves to inferior positions, when a little self-sacrifice and determination to succeed would lead them on to the heights.

Recently the writer's attention was called to a life chapter that was full of interest and inspiration, telling, as it did, of honest effort to rise, due appreciation, and subsequent success.

Alexander Martin was what is commonly known as a rough carpenter—that is, he was employed on the rough work in building; his wages were somewhat less than two dollars a day, and considering the fact that there were frequent intervals when there was no work to be done it is not strange that he found difficulty in making both ends meet. One morning the thought occurred to him that his average earnings were less than a dollar and a half a day, while men who were working on the same building were receiving three and four dollars for a day's work and having constant employment. Many of them were no brighter than he, he flattered himself; the difference was that they had learned the art of doing fine work.

That night, and for many nights following, Martin carried home with him a bundle of hard wood, small blocks which had been thrown into the waste. The men wondered what he was doing with the pieces of hard wood which he carried home from time to time, and they were puzzled when they learned that he had purchased a chest of tools such as only the best carpenters have use for. They noticed that his work was more accurate, but somehow the truth did not dawn upon them.

One morning the contractor asked his men if any of them knew where he could find a first-class man capable of building the spiral staircase leading from the front hall to the second floor. The house was to be completed on a certain date, and, as the man who was to have built the staircase was sick, he needed an expert at once.

"I think I can do the work satisfactorily," said Alexander Martin, stepping forward.

The contractor looked amused. "I fear I shall need an experienced hand," said he, striving to repress a smile.

"I am confident that I can satisfy you, sir," said Martin.

"Well, get your tools and go to work, then," said the boss; "but it will not take me a day, nor an hour, to see what you can do in that line, young man."

That afternoon Martin began on the staircase, and, though the contractor frequently passed that way to view the work, contrary to the expectations of the other men, he was not interrupted. As the work progressed the other carpenters stopped to admire; the inland work was a marvel of cunning and art, and the sight filled them with amazement.

"You are building the stairs to success, Al," said one of the men, the latter part of the week; "the boss is mightily pleased with your work."

Saturday afternoon the staircase was completed, and as Martin was sweeping away the chips and sawdust the contractor handed him his pay envelope. There were twenty-two dollars in it, more money than he had ever before received in a fortnight.

"I shall want you on a similar job next Monday," said the contractor; "in fact, there will be work of this nature for you right along."

It was then that Alexander Martin began to realize that he had been building the stairs that were to lead him upward to success; that those days and evenings which he had spent at home, working out geometric designs with the blocks of hard wood, had not been wasted.—Forward.

"What is the saddest work of fiction you ever read?" "The cook book," answered the young woman who had not been married very long. "Not more than one in ten of those pieces comes out right."

A young lady from London on a visit to some country relatives was taking tea on the evening of her arrival. A large pot of honey was on the table, and the visitor helped herself liberally. "What delicious honey!" she exclaimed, when she tasted it. "I suppose you keep a bee!"

Two workmen were discussing serious subjects. Quoth the younger: "I say, Bill, what are these here joint stock companies?" "Well, I'll explain it to yer. You an' Jim an' half-a-dozen more of your mates puts up a penny each, an' buys two ounces of haccra an' a clay an' l sits down an' smokes the pipe an' bacca. D'ye see?" "Yes, but where do we come in?" "Oh, you're the shareholders. You fellows looks on an' spits."—Ex.

In the Centre of Africa the fame of Pain-Killer has spread. The natives use it to cure cuts, wounds, and sprains, as well as howel complaints. Avoid substitutes, there's only one Pain-Killer, Perry Davis', 25c. and 50c.

Housework Costumes.

A teacher of physical culture, asked by the present writer if women could make housework easier by a knowledge of how the muscles ought to be used, said, "Yes, most decidedly."

"It is not," she explained, "because household labor can be done very differently, but by knowing how to rest in breathing spells between such work, and by dressing hygienically. If public opinion would not forbid, I would declare for every woman doing housework in a gymnasium suit. I adopted it years ago, and I know a number of women who wear it when they sweep or scrub. At housecleaning time it is a genuine emancipation. Watch a man and a woman do housecleaning. He can wash, paint, dust, scrub, hang pictures readily and with little effort. At six o'clock the woman is completely fagged, her skirts are dragged and dirty and scores of times through the day she has been in danger of breaking her neck. If you should once sweep or scrub in bloomers you would never do the job again in skirts if you had to lock every door and draw down the shades. Of course a ring at the door-bell would throw a woman into a panic unless custom were to sanction the gymnasium suit. Women must do the next best thing, wear a short skirt and a loose, comfortable waist. Corsets should never be worn at work; it makes every task more toilsome because the greatest freedom of movement is required. If absolutely necessary, don a loose, unboned waist or a bust supporter. Then lay aside tight collars, which compress the neck as uncomfortably as a corset does the body. The high, close collar which has been in vogue is to blame for throat troubles, and if women could only be brought to believe it, they are ruining their necks. Ugly wrinkles and a darkened skin are inevitable results of shutting from the throat every breath of fresh air.

"A working blouse may be comfortably made with the neck open and a sailor collar. Wear bloomers under the short skirt instead of petticoats, and for housework there is no footwear so comfortable and cool as canvas shoes with a thin leather sole and half-inch heels." — Good Housekeeping for October.

Street Corner Education.

The editor of the Wapella Post had the courage to say some time ago:—

"It is not an unusual thing to see parents looking for their 'boys' on the streets or in the stores at ten and eleven o'clock at night, and almost any night a crowd of children—boys and girls—can be seen playing on the streets at an hour when they should be at home and asleep. Nine or half-past nine is late enough for children to be out, and parents who have any regard for the welfare of their boys and girls should see that they are in the house by that hour. We have boys in town, under sixteen years of age, that can throw out more profanity in fifteen minutes than a Kentucky Colonel could in a day, and besides they appear to have little or no regard for ladies or young girls that may be within hearing. Children must have time to play, we will admit, but there is ample time for them to romp and play between 4 and 9 p.m., and no necessity of their being on the streets after that hour. A boy at fifteen who spends his nights on the streets and who can curse strong enough to make your hair curl and your toes warp, is not likely to become a 'shining light' or intelligence and integrity. The future of the boy lies in the hand of his dad. Fathers get your boy in at a reasonable hour at night, and have a raw hide or some other implement of torture in that hand to be used whenever you hear of his using profane language or smoking cigarettes. It is a howling success, we've experienced it."

Another man remarks: "If a man has a fifty-dollar bull-pup he will look after it carefully and not let it run all over town at night. But if he has a boy it is different; the boy is turned loose at a tender age to go to the bad—yet people wonder where the members of the army of loafers, cigarette fiends, and gamblers come from. The boy ought to be given an equal chance with the bull pup surely."

The French method—and an excellent one—of making gravy with roast meats, is to baste the roast repeatedly with butter. The resultant rich juices are neither thickened nor strained.

Not all cooks understand the different effect produced by hard and soft water in cooking meat and vegetables. Peas and beans cooked in hard water will not cook as soft as in soft water. Many vegetables, as onions, will become nearly tasteless in soft water, because all the flavor is boiled out. For extracting the juice of meat to make soup, soft water is the best; but for boiling where the juices of the meat should be retained, hard water is preferable, and meat should be put in while the water is boiling, so as to seal up the pores at once.

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Worth Knowing.

Borax sprinkled on pantry shelves is a good remedy to drive away ants.

Repellant Pie Crust.—If the bottom crust of a pie is brushed over with the white of an egg before putting in the filling, it will not absorb the juices and become soggy.

Polish Improved.—By adding a teaspoonful of powdered alum to stove blacking, your stove will receive a durable blacking as well as a fine polish, if rubbed thoroughly.

"A man who has spotted and soiled his garments in youth, though he may seek to make them white again, can never wholly do it, even were he to wash them with big tears."—Beecher.

Vegetable Odors.—A little vinegar kept boiling on the stove while cooking cabbage, onions or cauliflower, will prevent much of the odor from these vegetables escaping through the house.

Care of Teapot.—Do not allow tea to stand in a teapot between meals. Make no more than you will be drunk, throw out the tea grounds, wash and scald and dry each time the teapot is used.

Coffee-Stained Linen.—Soak in cold water to which has been added a little borax; to remove tea or fruit stains, do not put the cloth in cold water, but pour boiling water through it until the stains disappear.

The art of putting the right man in the right place is, perhaps, the first in the science of government, but the art of finding a satisfactory position for the discontented man is the most difficult.—Talleyrand.

To Brighten a Carpet.—Sprinkle over with salt just before sweeping, and after it has been swept, wipe over carefully with a cloth wrung out of salt water. This will remove all particles of dust and bring out the colors freshly.

Mashed Potatoes.—The secret of making good mashed potatoes is to keep them hot while mashing, and to have also the milk very hot when it is added. Beat thoroughly and serve in a hot dish. Lay a piece of butter on top and serve.

"The books which help you most are those which make you think most. The hardest way of learning is by easy reading; but a great book that comes from a great thinker is a ship of thought, deep freighted with truth and with beauty."—Theo. Parker.

Brown Bread.—Set the sponge over night, using a pint of warm water, a teaspoonful of salt, a half of a small yeast cake, and enough wheat flour to make a soft sponge. In the morning add two tablespoonfuls of sugar and stiffen with graham flour as stiff as can be stirred with a spoon. Turn into a greased pan, let it stand until light, and bake in a moderate oven one hour.

Carrot Pie.—The attention given of late by dietary authorities to the value of carrots as food, has suggested to some housekeepers to experiment with carrot pie. This dish was popular and often seen one or two generations ago, but has not survived with its cousins—german, the squash and pumpkin pie. After the carrots are steamed or boiled till tender, they are put through a colander, and proceeded with exactly as in the case of squash or pumpkin to be used for pie. The filling is used, of course, in a pastry shell, without an upper crust.

Boiling Eggs.—No housekeeping tradition dies so hard in the face of scientific cooking-school enlightenment as that which relates to the boiling of eggs. A soft-boiled egg, according to nine cooks out of ten, is put on in boiling water and allowed to remain from two to two and a half minutes. Eggs intended to be hard boiled also go in boiling water, and stay from ten to fifteen minutes. The new reading has changed all this. The modern cooking teacher says that when the water is allowed to boil the egg is tough, horny and indigestible. To cook eggs soft, she further explains, they must be put in cold water, which is brought to a temperature of 175 deg. F., and allowed to stand in this water from six to eight minutes. For hard boiled eggs, put in cold water, bring to 175 deg. F., then set back from the fire and keep hot forty-five minutes. Cooked in this way the albumen is reduced to a jelly-like substance, easily digested, and the yolks are dry and mealy.

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